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CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

COUNTRY China

SUBJECT Monthly Reports of the Shanghai Power Company (1948)

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SOURCE DOCUMENTARY

Available on loan from CIA Library are the monthly reports of the Shanghai Power Company, for the year 1948. These reports contain information on the following subjects:

Revenues & Expenses (Compared with 1947)

Electric Demand, Output, Sales & Losses

Customers, Service Inspections

Employees

Operation

Charts

Peak Load
 Output - Monthly
 Employees

AppendixReport

Secretarial & Accountancy - S.P.C. & W.D.P.C. (Western District Power Co.)

Consumers' Monthly Report - S.P.C.
 Consumers' Monthly Report - W.D.P.C.

Generation Report

Distribution Operation Division - S.P.C. & W.D.P.C.

Larceny of Electricity

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SHANGHAI POWER COMPANY
AND
WESTERN DISTRICT POWER COMPANY OF SHANGHAI
TELECOM INC., U.S.A.

MONTHLY REPORT

FOR

JANUARY 1948

ILLEGIB

25X1A

SHANGHAI POWER COMPANY
AND
WESTERN DISTRICT POWER COMPANY OF SHANGHAI
FEDERAL INC., U.S.A.

CONTROLLING REPORT

F.C.R.

JANUARY 1948

ILLEGIB

SHANGHAI POWER COMPANY

▼

ECONOMY CAMPAIGN NOTICES

No. 1-11

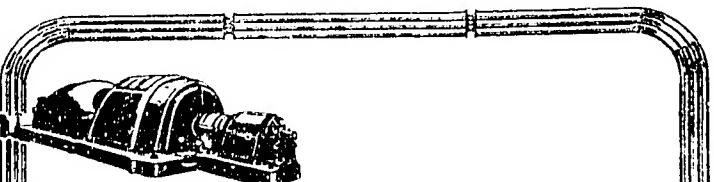
*Published in the following newspapers from
January 17 to January 29, 1948, inclusive:*
CHINA DAILY TRIBUNE
THE CHINA PRESS
NORTH CHINA DAILY NEWS
THE SHANGHAI EVENING POST & MERCURY

▼

With the Compliments
of
CHINA COMMERCIAL ADVERTISING AGENCY

CPYRGHT

No. 1



**SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY**

• *Announcement* •

SINCE 1940 regular advertising has been discontinued except for the publication of rate changes. This economy has been necessary because of inadequate earnings since 1937, and because the pre-war shortage of fuel and the post-war shortage of generating capacity forced restrictions upon power usage.

Despite the generous space and fair interpretations of the critical power shortage in Shanghai given by the press from time to time, there are some persons who are not clear as to precisely why they must economize in the use of electricity, or as to the purpose of the present restraints in the form of allotments and restrictive charges imposed upon them.

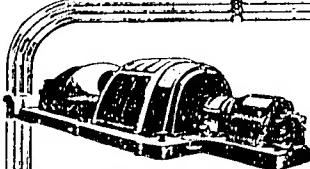
Because it no longer seems fair to impose the costs of publicity and explanations upon free space contributed by the press, it is proposed to publish a series of paid notices dealing with the power problem in Shanghai.

This is simply an announcement of the forthcoming series.

NOTICES UNDER THIS INTRODUCTION, SERIALLY NUMBERED, WILL APPEAR CURRENTLY AND SO FAR AS POSSIBLE IN THE SAME SPACE IN THIS NEWSPAPER.



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**TO
RESIDENTIAL & COMMERCIAL
CONSUMERS OF ELECTRICITY**

No. 2

Heavy restrictive charges enforced since October 1, 1947, have resulted in the use of 7,000 kilowatts for industrial use. This amount is only one-third of the required 20,000 kilowatts. Industries must be served in order to produce goods and reduce unemployment.

Below is a twenty-four hour graph showing power demands on us by other utility companies, manufacturing industries using power, the cotton industry, and by the residential and commercial groups of users.

TYPICAL DAILY LOAD CURVE -- WINTER

This graph shows that residential and commercial loads, the latter including shop, office, hotel and restaurant consumers, use power 24 hours between 5:00 pm and 7:00 pm. During the present various power shortage this usage must be considerably reduced. Furthermore, it will be seen that residential and commercial consumers must cut their usage between the hours of:

7:00 am until 11:30 am (Area A)
1:00 pm until 7:00 pm (Area A)
8:00 pm until 10:00 pm (Area A)

Please cut off and save this graph. We would refer to it again in future articles which we read and mailed up to you should save your money and reduce the amount used for electrical traction.

SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY

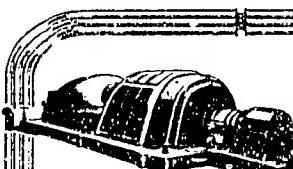


SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

CPYRGHT

**LEARN HOW
TO READ YOUR METER
AND THEN
READ IT REGULARLY**

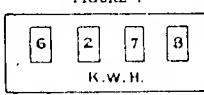


No. 1

A regular check of the number of units (kilowatt hours) being used during the month is an aid to economy, and yet very few consumers read their meters. The following instructions and illustrations will enable consumers to read meters correctly.

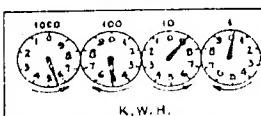
The meters in use by Shanghai Power Company and Western District Power Company are fitted, as a general rule, with registers which have twice or four times your reading made. There are two types of registers:

FIGURE 1



1. Cyclostyle Type which shows the reading in plain figures.
K.W.H.

FIGURE 2



2. Pointer Type which gives the reading by means of hands on a number of dials.
K.W.H.

More care is required in reading this type of register.
(a) Read from left to right as in the case of the cyclostyle meter type.
(b) When a hand is between two numbers, read the smaller except when it is between 9 and 0. In this case read the larger. When a hand is on a number plus one, read the number less unless the hand on its right has passed through 0.
The above reading is 109, not 550.
The direction in which the hands rotate is shown by the small arrows.

HOW MANY UNITS HAVE BEEN USED?

The number of units (kilowatt hours) that have been used between two readings is the difference between those readings.

Example: Reading today	:	7,607
Reading same day last week	:	7,041
Difference	:	566 K.W.H.

Consumption of electricity is 566 K.W.H. in 7 days, which is equal to:
248 K.W.H. in one month.
On the face of some registers are printed multipliers usually shown in this way:
10 K.W.H. x 10 or K.W.H. x 100, or some other figure.
This means that the difference between two readings must be multiplied by this number to obtain the K.W.H. used.
In the above example the multiplier of 10 would mean that 566 x 10 = 5660 K.W.H. had been used in one month.

WE RECOMMEND THAT YOU READ YOUR METERS WEEKLY, SO THAT YOU CAN CHECK YOUR CONSUMPTION REGULARLY.

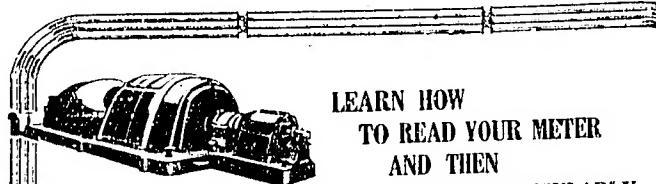
SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

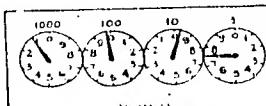
CPYRGHT



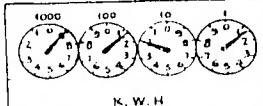
Refer to the instructions issued yesterday for reading
POINTER DIALS.

When a hand is between two numbers put down the
smaller, except when it is between 9 and 0, in which case
put down 9. When a hand is on a number put down one
number less, unless the hand on its right has passed
through 0.

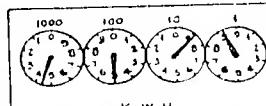
• EXAMPLES •



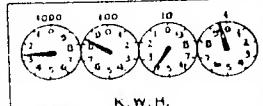
READING = 0997 NOT 1997



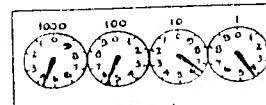
READING = 9121



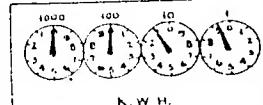
READING = 4489 NOT 4599



READING = 2839 NOT 2049



READING = 4564



READING = 0009 NOT 0919

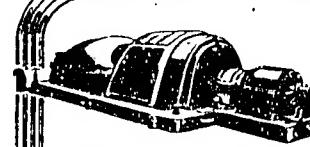
WE RECOMMEND THAT YOU READ YOUR
METERS WEEKLY, SO THAT YOU CAN CHECK
YOUR CONSUMPTION REGULARLY.

SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY
TURN WASTAGE TO PRODUCTION

CPYRGHT



**WANTED
URGENTLY**

No. 6

**20,000 KILOWATTS OF
ELECTRICAL POWER FOR SHANGHAI INDUSTRY**

This can be made available from SHANGHAI POWER COMPANY'S EXISTING GENERATORS.

All that is needed is for every residential and commercial consumer to reduce his total lighting load (total wattage) by 150 watts.

This result can be obtained either by taking lamps out of service, or by reducing the size (wattage) of the lamps in use.

Eight 40 watt lamps substituted for the same number of 60 watt lamps will save 160 watts.

Some consumers may not be able to save the full 150 watts. However, many can, and the majority can make even larger reductions.

For example:

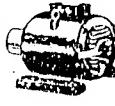
(1) A standard radiator consumes as much power as Fifty 60 watt lamps

(2) Consumers who cook by electricity should realize that a large hot plate with the switch in the HIGH position consumes as much power as Thirty-three 60 watt lamps

And that the smaller hot plate with the switch in the LOW position, consumes as much power as Five 60 watt lamps

EVERY CONSUMER CAN MAKE SOME REDUCTION AND THUS SUPPORT THIS CAMPAIGN TO SAVE POWER FOR INDUSTRY.

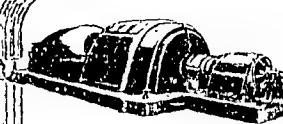
SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

CPYRGHT



No. 7

ELECTRIC COOKING ECONOMY

Cooking by electricity is expensive at present day rates and consumers are urged to use other and cheaper methods.

If, however, you are cooking by electricity, considerable economy can be effected by a more careful use of the hot plate and oven.

Most hot plates and ovens are fitted with control switch which provide of HIGH, MEDIUM and LOW heat.

Do not leave a set in the HIGH position any longer than is necessary. Turn it to MEDIUM or LOW, and in most cases the degree of heat provided with the switch on these lower positions will be sufficient for your requirements.

Make more use of the grill if one is fitted. It is cheaper than using the oven indiscriminately.

BOR ALL THE WATER YOU REQUIRE BY SOME OTHER MEANS IF POSSIBLE.

Keep the number of hot plates in use down to a minimum. Make full use of those already switched on.

Cooking at present has cost a consumer approximately CN\$15.00 per 1000 watt hour, and the following figures show what it costs per hour to run the hot plates, grill and oven at HIGH, LOW and MEDIUM heat. Study these figures and appreciate the considerable amount of saving you can effect.

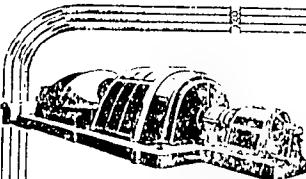
COST IN CNS PER HOUR TO OPERATE

	High Heat	Med. Heat	Low Heat
High Max Heat	\$16.00	\$15.00	\$7.500
Large hot plate	18.000	9.000	4.500
Small hot plate	18.000	9.000	4.500
Grill	18.000	9.000	4.500
Oven	19.00	22.500	-

INSTRUCT YOUR COOK IN THE ECONOMIC USE OF THE COOKER

SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY

CPYRGHT



SUGGESTIONS FOR ECONOMY IN LIGHTING

Are you getting the most economical service from your electric lamps?

Check the following points and you may be able to reduce the number or put in smaller lamps. (This will save watts and reduce your bills.)

Are the light bulbs clean?

Dirty bulbs lose much of their lighting efficiency. Remove lamps periodically and wipe them over carefully with a damp cloth.

Are all of the lights fitted with proper shades?

A good shade reflects the light so as to make best use of it at table height where it is most needed.

Are all shades clean?

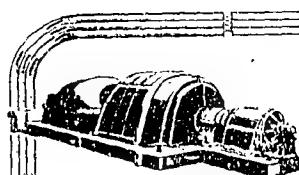
Clean them too with a damp cloth regularly. A dirty shade does not reflect light as it should do. A clean 40 watt lamp with a proper shade will give more light than an unshaded dirty 60 watt lamp.

Observance of these suggestions will save electricity and reduce your bills.

SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



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No. 9

IT IS NOW CHEAPER TO COOK BY
COAL, BRIQUETTES, COAL, CHARCOAL OR OIL
THAN BY ELECTRICITY

Many consumers have had to continue by switching to the electric for cooking. Coal and oil are cleaner and more fuel efficient than electricity.

Electric power rates have been changed from electricity to coal, briquettes, coal, charcoal or oil. Report of the following comparative costs per month:

	CN\$
COAL AND CHARCOAL	
5 pailfuls coal, 100 kg each	1,000,000
3.4 pailfuls of charcoal	300,000
Fine wood, 100 kg each	150,000
	1,350,000

PREVIOUS MONTH

Using a 7.5 KW motor for cooking and water boiling, the consumption was 750 kw hours. This consumption would be known to you which shows that with the alternative would at the same preceding rates take up the cost under eight months CN\$100,000 at least for oil.

The consumer claims that he has off loaded CN\$5,550,000 in a year.

Other consumers have discovered further substantiating the fact that electric cooking is more expensive than coal, charcoal or oil. For example, coal, charcoal or oil CN\$1,000.

Take advantage of clean, efficient cooking and do not waste your time and money.

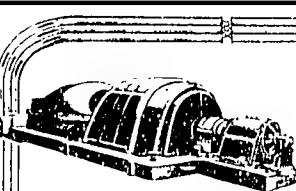
SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

CPYRGHT



No. 10

ELECTRIC POWER AND FOREIGN EXCHANGE

Waste of electricity wastes the Government's foreign exchange reserves.

Over 80% of our power is generated by imported fuel oil. That oil must be paid for in United States dollars.

If the required exchange were not available from the Government, and fuel oil could therefore no longer be obtained, the fuel problem could not be relieved by substituting coal. The Governor's Fuel Control Commission, at real sacrifice, regularly allot's approximately 20,000 tons of coal per month to the Company. Under prevailing conditions no more is available, although this amounts to less than 20% of the Company's total fuel requirement.

Foreign exchange required to purchase fuel oil amounts to over US\$420,000 per month.

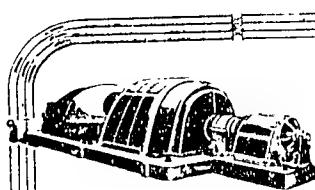
You will help your taxes, the government and productive industries, if you economize in the use of electricity.

PLEASE HELP TO CONSERVE FOREIGN EXCHANGE

SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



CPYRGHT



No. 11

TO INDUSTRIAL USERS OF ELECTRIC POWER

An appeal is often made through the press to all residential and commercial consumers to economize in order to release further power for industry.

Industrial users have given the Shanghai Power Company much cooperation by requesting to plant more and reducing load at certain hours of the day, thereby enabling the Company to release power available to the best possible advantage of Shanghai's industry as a whole. This co-operation of industry is regarded as a valuable contribution to a very critical need.

There are other avenues toward further economy by industrial users which may be explored with advantage. Managers of industrial establishments are requested to check the following points:

Are all of your motors properly loaded? Are you running too many motors for the work you have to do?

(A highly loaded motor makes very uneconomical use of power.)

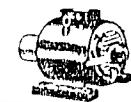
Can you rearrange your load so as to reduce the number of motors required?

Are factors not to be well lighted for satisfactory operation? Is there any waste from any way?

IN SHORT, ARE YOU MAKING BEST USE OF THE ELECTRIC ENERGY YOU TAKE?

The Shanghai Power Company offers expert advice in dealing with such problems free of charge.

SHANGHAI POWER COMPANY
WESTERN DISTRICT POWER COMPANY



TURN WASTAGE TO PRODUCTION

SHANGHAI POWER COMPANYM O N T H L Y R E P O R TF O RJ A N U A R Y 1 9 4 8CONTENTS:I N D E X

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Net Output or Purchase in MKWH	2B	1
Units Sold & Accounted for in MKWH	2C	1
Transmission & Distribution Losses in % of Net Output or Purchase	2D	1
Customers, Service Inspections	3	1
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Service Inspections	3B	2
Employees	4	2
Riverside Operations	5	2

CHARTS:

Max. Hour Generation & Output	A
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Employees	C

APPENDIX:Reports

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SHANGHAI POWER COMPANYS U M M A R Y1. REVENUES & EXPENSES COMPARED WITH 1947 [C8]:

<u>Operating Revenues</u>	(C\$ figures in thousands)	<u>Month of January</u>	
		<u>1948</u>	<u>1947</u>
S.P.C.	C\$ 473,084,099	C\$ 7,506,500	
W.D.P.C.	" 116,809,724	" 1,824,876	
Combined ++	C\$ 492,443,225	C\$ 8,249,075	
<u>Operating Expenses</u>			
S.P.C.	C\$ 329,858,481	C\$ 7,350,038	
W.D.P.C.	" 111,649,591	" 1,421,540	
Combined ++	C\$ 343,860,174	C\$ 7,689,195	
<u>Net from operation</u>			
S.P.C.	C\$ 143,427,618	C\$ 156,552	
W.D.P.C.	" 5,160,133	" 403,330	
Combined ++	C\$ 148,567,751	C\$ 559,882	

++ inter-company items eliminated.

2. ELECTRIC ENERGY, UNIT, SALES & LOSSES:2A Maximum hour in kWh

S.P.C. Riverside max. hr. generation	157,797	134,096
W.D.P.C. max. hr. demand in kWh	34,222	30,780

2B Net output or purchase in kWh (x=1000)

S.P.C. Net output	88,640	71,455
W.D.P.C. purchase from S.P.C.	20,027	14,726

2C Units Sold x Accounted for in kWh

S.P.C. (including sales to W.D.P.C.)	84,932 x	68,864
W.D.P.C.	10,219	13,909

2D Transmission & Distribution Losses in Percent of net output

S.P.C. (W.D.P.C. considered as one customer)	4.2	3.6
W.D.P.C.	4.0	5.0

3. CUSTOMERS, SERVICE INSPECTION:3A Customers

S.P.C.	99,907	97,273
W.D.P.C.	22,285	20,734
Combined ++	122,191	118,000

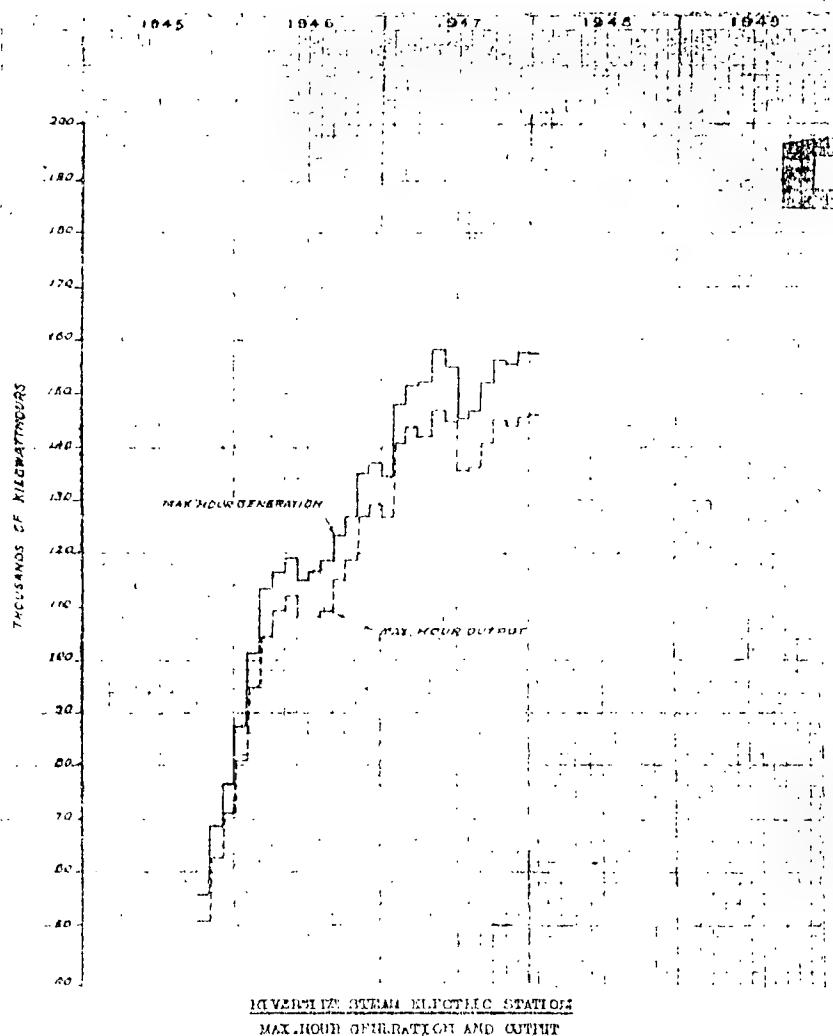
++ inter-company items eliminated.

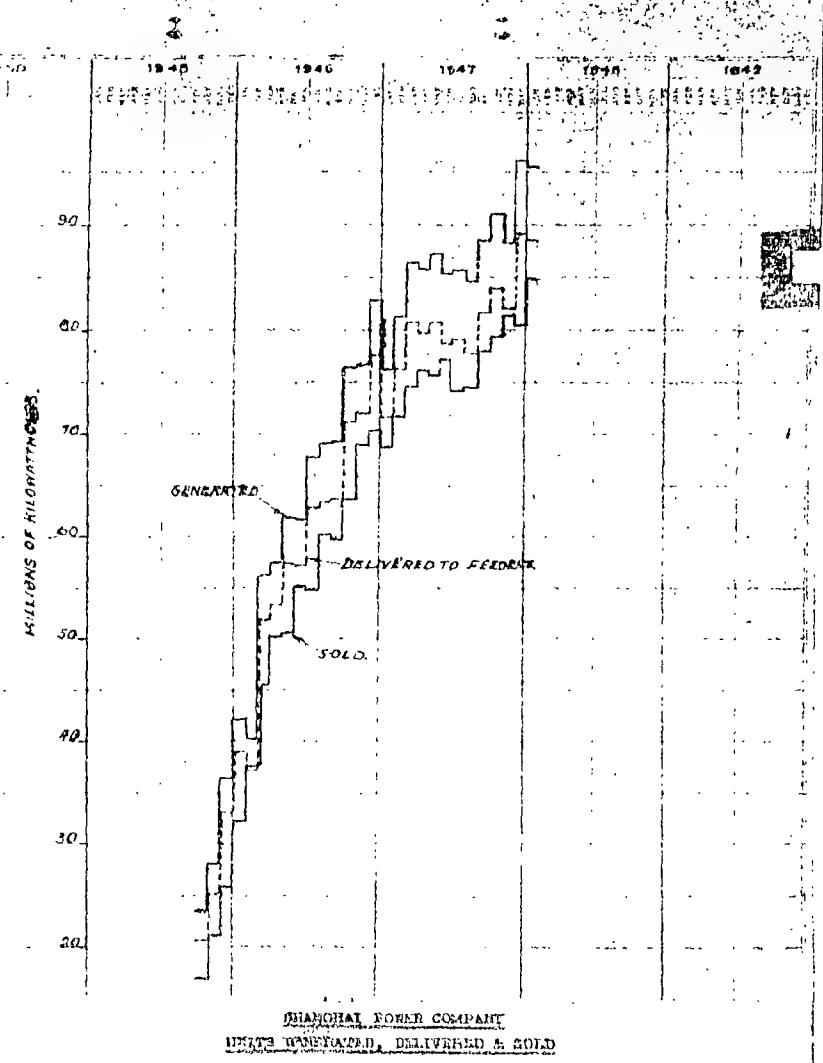
x including 920 kWh losses in synchronous plant for power factor improvement.

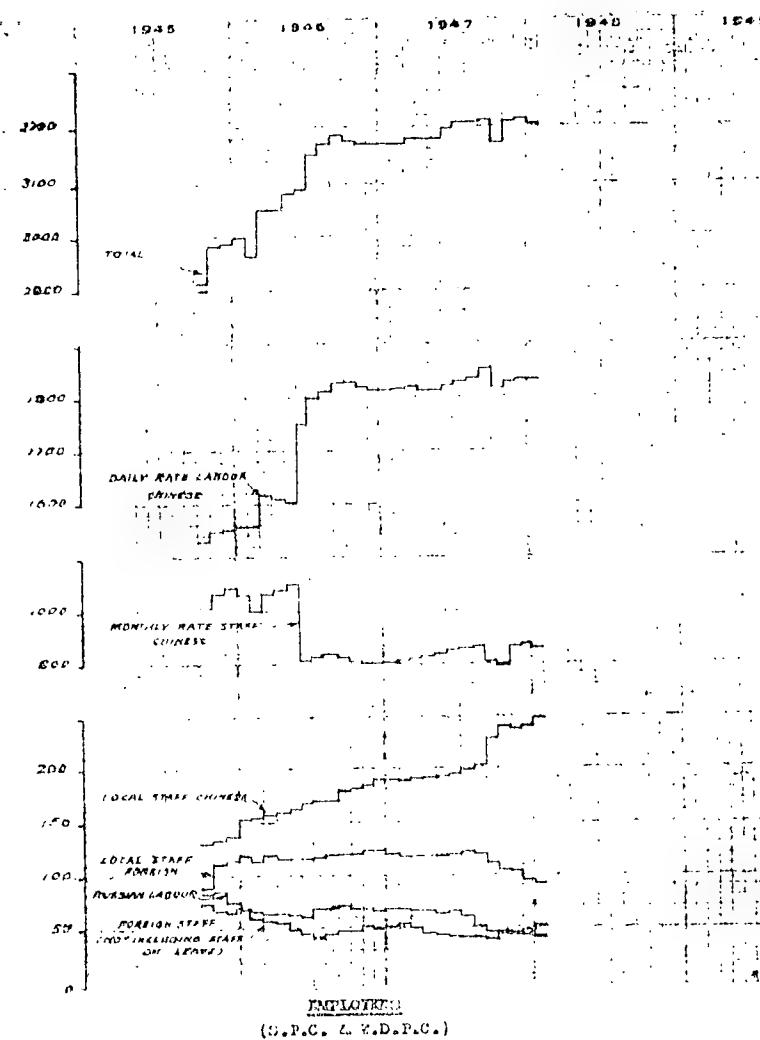
SHANGHAI POWER COMPANY

- 2 -

<u>3B Service Inspections</u> (C\$ figures in thousands)			Month of January	
			1948	1947
<u>Number</u>	S.P.C.		5,043	5,946
	W.D.P.C.		1,650	3,021
	Total		<u>6,742</u>	<u>8,967</u>
<u>Irregularities</u>	S.P.C.		730	1,024
	W.D.P.C.		218	500
	Total		<u>957</u>	<u>1,524</u>
<u>Cash recovered (C\$)</u>	S.P.C.		114,481	3,765
	W.D.P.C.		<u>24,724</u>	<u>1,015</u>
	Total		<u>139,205</u>	<u>4,780</u>
<u>No. of recoveries</u>	S.P.C.		27	26
	W.D.P.C.		8	7
	Total		<u>35</u>	<u>33</u>
<u>4. EMPLOYEES:</u>				
<u>Number</u>	S.P.C.		3,081	3,043
	W.D.P.C.		125	127
	Total + (including staff on leave)		<u>3,204</u>	<u>3,170</u>
<u>5. RIVERSIDE OPERATIONS:</u>				
(1) Generating capacity			1948	1947
Name plate rating (kW)			171,500	158,500
Normal plate rating (kVA)			210,150	195,000
Working rating - winter (kVA)			213,080	198,370
Working rating - summer (kVA)			190,830	176,180
* Excludes 16-2, 16-6 & 16-11.				
(2) Instantaneous peak generation (kW)			160,119	139,981
(3) Efficiency (kTU per kWh output)			18,872	20,516
(4) Load Factor (Based on output & Max.Hr.Output)			81.55	76.03
(5) Fuel in tons of 2240 lbs.			1948	1947
	Coal	Oil	Coal	Oil
In stock at end of December 1947.	21,380	2,516	19,282	2,014
Received during month	9,154	31,011	20,054	24,142
Used during month (including sundries)	<u>17,496</u>	<u>31,117</u>	<u>21,005</u>	<u>24,395</u>
In stock at end of January 1948.	<u>13,037</u>	<u>2,410</u>	<u>18,331</u>	<u>1,761</u>







SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANCY

JANUARY 1948

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANYCash on Hand and in Banks - Shanghai

<u>Current Bank Accounts</u>	<u>S.P.C.</u> CH\$	<u>W.D.P.C.</u> CH\$
Secretary & Treasurer	-	193,094,409
Hongkong & Shanghai Banking Corporation		
General Fund Account***	7,988,099,782	-
Fixed Deposit Account due 2.15.48	10,000,000,000	-
Chase Bank-Fixed Deposit Account due 2.28.48	10,000,000,000	-
National City Bank of New York		
General Fund account	1,610,391	-
Demand Deposit Account	5,000,000,000	-
CH\$10,000,000 due 2.2.48		
CH\$15,000,000 " 2.1.48		
Banque Belge pour l'Industrie		
General Fund Account	1,122,600	-
Fixed Deposit Account due 2.10.48	10,000,000,000	-
The Bank of China		
The Christian Industrial Bank, Ltd.	11,196,110	-
General Fund Account	116,219,351,585	38,046,636,674
Fixed Deposit Account due 2.12.48	20,000,000,000	-
Comparative Cash on Hand	9,431,039,927	1,398,472
Total	208,672,984,395	38,241,129,555

Remittances

During January 1948 the following remittances were obtained by us at the official open market rate of exchange.

Remittances to New York office

Date	Amount	Remarks
Jan. 1-31	US\$57,101.90	For various materials purchased in New York through Ebasco International for nation.

Remittances to London Agent

Date	Amount	Remarks
Jan. 1-31	£2,468-16-5	For purchase of various materials in London through Hetheson & Co., Ltd.

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China.

	Thousands CH\$	Exchange Rate	U.S.\$
Balance of account at December 31, 1947	41,983,884	90,000	466,437.60
Add January Fee	2,420,000	121,000	20,000.00
			436,437.60
Balance at open market exchange rate of CH\$121,000 to US\$1	78,865,000		466,437.60
Difference in exchange	14,461,116		-

SHANGHAI POWER COMPANY

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The difference in exchange amounting to CH\$14,461,116,000 was charged to Miscellaneous Suspense - Exchange Adjustment and subsequently transferred to Exchange - Net.

Accounts Payable

Unpaid fuel bills as at January 31, 1948, were as follows:

<u>Coal</u>	Unpaid bills for January	-	C. 4,592,400,000
<u>Import Duty on Fuel oil</u>	Estimated unpaid duty	-	CH\$20,424,072,385

Accounts Receivable & Collections

The total amount due from consumers as at January 31, 1948, excluding municipal and CH\$103,132,465,000 intercompany sales due from Western District Power Company of Shanghai was CH\$592,408,089,000. The amount due from the Municipal Government for both companies was CH\$20,410,956,000.

During the month, a total of 105,410 bills were sent out and the total amount billed for both companies, excluding intercompany sales, was CH\$594,943,655,900. Our cash collections during the month amounted to a total of CH\$45,739,465,600.

Customers' Deposits

Deposits collected during the month for both companies amounted to CH\$45,521,000 and refunds to CH\$3,302,000. The balance of deposits held against service charges for both companies amounted to CH\$17,660,260,000 of which the amount of CH\$27,996,000 (nominal value) was in the form of securities segregated as follows:

	Value C.H.S.	Deposit C.H.S.
S.M.C. Debentures	12,620	-
Bank Guarantee	56,800	25,027,600
S.P.C. 5% Silver Preferred	2,050,720	572,600
Shanghai Tele. Co. Shares	2,100	-
S.P.C. First Mortgage Debenture, 5% Dollar Series, due 1973	<u>131,300</u>	<u>42,000</u>
	<u>2,253,540</u>	<u>25,642,200</u>

Payroll

Our payroll for the month with high cost of living index 95,200 times basic (scaled down in accordance with Municipal Government formula) totalled CH\$50,899,339,000.

Rate Revision

Due to increased cost of operations, the Government approved a further revision of our rates and brought our rates for ordinary consumers up to CH\$6,900 per kWh effective from January 6, 1948. The Consumers' Engineering Dept. monthly report will give further details on this matter.

SHANGHAI POWER COMPANY

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Contingency Reserve

During the month, a total of CH\$66,970,845,000 was set aside as Contingency Reserve and the amount charged off from Suspense to current month operating expenses was CH\$16,970,845,000 based upon the following calculations:

Balance on books before adjustment	CH\$48,025,499,000
Balance adjusted to Jan. 31 exchange rate of CH\$121,000	<u>66,970,845,000</u>
Balance charged to Operating Expenses in January	CH\$16,970,845,000

Employee Pension & Retirement Reserve

A total of CH\$18,366,000,000 was set aside as provision for this reserve in the current month based upon the following calculations and charged to operating expenses.

Total estimated potential liability for pensions US\$1,500,000 at 121,000	CH\$181,500,000,000
Total estimated potential liability at December 31, 1947 in respect of Net-rental Gratuities for Local Appointees & regular staff = basic CH\$3,07,394 at Jan. N.C.L. 95,200	<u>286,304,000,000</u>
Less accrued to December 31, 1947	CH\$467,604,000,000
Amount to be accrued over two years from January 1, 1948, to December 31, 1949	<u>27,019,000,000</u>
January proportion = 1/24 of total	CH\$ 18,366,000,000

Dividend Equalization Reserve & General Reserve

During the month we set aside CH\$5,042,000,000 for Dividend Equalization Reserve and CH\$2,821,000,000 for General Reserve. The increases over the respective last month figures were due to the revision of the official open market rate of exchange from CH\$90,000 on December 31, 1947, to CH\$121,000 on January 31, 1948.

Material Replacement Reserve

A total of CH\$10,095,431,000 was charged to this reserve based upon the comparison between issues at original and replacement costs.

Casualty and Insurance Reserve

The current month provision for this reserve was CH\$605,000,000 based on US\$5,000 at the exchange rate of CH\$121,000 and charged to operating expenses.

Chinese Government Profits Tax

A total of CH\$36,864,000,000 was accrued in the current month for this tax, representing 25% of our estimated taxable income of CH\$147,456,108,000.

R. Kendall Ward

A. Kendall Ward
Secretary & Treasurer

February 26, 1948

SHANGHAI POWER COMPANY

REF ID: A

March 5, 1946

SERIAL 111-671

CHINESE MONTHLY REPORT FOR JANUARYSHANGHAI POWER COMPANYJANUARY STATISTICSAnalysis of Residential

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase %</u>
Residential lighting	1,275,700	1,275,514	+15,186	-3.8
Commercial lighting	1,121,120	1,121,000	+11,120	-3.8
Residential heating & cooking	1,471,700	1,471,517	+1,183	-1.4
Commercial heating & cooking	1,391,700	1,391,517	+1,183	-1.4
Bulk supply Industrial	1,101,120	1,101,000	+1,120	-1.8
Bulk supply Commercial	1,011,120	1,011,000	+1,120	-1.8
Small Power (incl. 1000W)	1,121,120	1,121,000	+1,120	-1.8
<u>Total Public Utility</u>	<u>32,631,120</u>	<u>32,631,000</u>	<u>112,120</u>	<u>0.3</u>
Shanghai Power	1,121,120	1,121,000	+1,120	-1.8
French Frans	1,121,120	1,121,000	+1,120	-1.8
Shanghai Interworks	1,121,120	1,121,000	+1,120	-1.8
Chapei Co.	1,121,120	1,121,000	+1,120	-1.8
Intercoating - 1000W	1,121,120	1,121,000	+1,120	-1.8
Private Street Lighting	1,121,120	1,121,000	+1,120	-1.8
Municipal Street Lighting	1,121,120	1,121,000	+1,120	-1.8
Municipal Others	1,121,120	1,121,000	+1,120	-1.8
<u>Total</u>	<u>4,241,120</u>	<u>4,240,000</u>	<u>1,120</u>	<u>2.6</u>
Total Units 1000W (1 month ending January 1946)	32,631,120	32,631,000	112,120	0.3
1 month	6,526,240	6,526,000	24,240	36.4

Analysis of Manufacturing over last month

	<u>This Month</u>	<u>last month</u>	<u>last Year</u>	<u>Increase over last year</u>
Chinese Cotton Mill	1,119,800	1,119,800	1,119,800	0.0
Other Cotton Mills	173,100	173,100	173,100	0.0
Total Cotton Mills	1,292,900	1,292,900	1,292,900	0.0
Flour Mills	763,000	763,000	763,000	0.0
Rubber Products	713,080	713,080	713,080	0.0
Paper Mills	1,154,540	1,154,540	1,154,540	0.0
Lumber Mills	23,400	23,400	23,400	0.0
Oil Produce	109,350	109,350	109,350	0.0
Oil Mills	268,950	268,950	268,950	0.0
Ice & Cold Storage Factories	235,655	235,655	235,655	0.0
Tobacco Factories	53,431	53,431	53,431	0.0
Milk Mills	1,670,395	1,670,395	1,670,395	0.0
Miscellaneous Textiles	808,920	808,920	808,920	0.0
Metal Working	242,320	242,320	242,320	0.0
Woollen Mills	493,762	493,762	493,762	0.0
Miscellaneous Other	21,470,348	21,470,348	21,470,348	0.0
Total	31,511,675	30,587,336	31,511,675	31,511,675

SHANGHAI POWER COMPANY

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	<u>CONNECTIONS</u>			<u>Increase during Month</u>
No. of Customers	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	
" Refrigerators	99,907	99,700	97,273	207
" Cookers (Hired) x	8,594	8,585	8,414	9
" Radiators (") x	2,954	2,954	2,973	-
" Water Heaters (") x	1,571	1,761	2,153	-190
" Misc. Appliances (") x	???	78	68	-1
K.W. of motors (") x	168	167	167	1
	14,278	14,184	14,116	94

* Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	103,747	102,505	100,877	242
" Heating: Comprising	(31,304)	(31,643)	(31,919)	(-339)
" Cookers	18,305	18,299	18,244	6
" Radiators	9,285	9,636	10,366	-351
" Water Heaters	154	152	123	2
" Miscellaneous	3,560	3,556	3,186	4
" Motors	435,817	422,270	428,995	3,547
" Industrial Heating	4,610	4,625	4,199	-15
" W.D.P.C.	54,600	54,600	54,600	-
" Total	430,078	426,643	420,590	3,435

CHANGES IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	58
Total Customers Disconnected	55
Gain	3
Total New Customers Connected	204
Total Increase During Month	207

CHANGHAI POWER COMPANY

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REF ID: A6525
SERIAL 111-103GENERAL COMMENTS:

Rates - The Automatic Formula, described in last month's Report, was used in the computing of the January rates. As already reported, the Formula in its completed form is:

$$\text{Average Rate} = 0.37x_1 + 0.43x_2 + 0.044(\frac{60}{100}y + \frac{40}{100}w)$$

The values for the variables, x_1 , x_2 , y and w which have been used for this rate computation are:

x_1 = Coal price = C\$2,150.00 per Metric Ton
 x_2 = Oil price = C\$2,931.707 " " "
 y = Cost of Living Index = 68,300
 w = Retail Index = 122,750

Inserting these values in the Formula, we have:

$$\text{Average Rate} = \text{C}6.017 \text{ per KWH}$$

It was agreed that the rate chargeable to the various classes of service would be set in accordance with the following ratios:

A = Average Rate
P = Power Rate (and Commercial bulk supply)
1.10 P = Lighting, Heating & Cooking Rate
0.60 P = Public Street Lighting Rate
1.10 P = Private Street Lighting Rate
0.80 P = Tramways & waterworks Rate
0.60 P = Chapoi " French Companies' Rate (within Allotment)
0.90 P = " " " " " " (usage in excess of Allotment)

The following table shows the rates approved to go into effect on January 6th and, for reference, the previous rates are given which had been in force since November 22, 1947:

	Effective Nov. 22, 1947 C\$/KWH	Effective Jan. 6, 1948 C\$/KWH
Lighting, Heating & Cooking	4,650	6,900
Commercial Bulk Supply	4,650	6,275
Power - up to 50,000 KWH/Month	4,650	6,275 x
" - excess over 50,000 KWH/Month	4,710	3,765
Public Street Lighting & Traffic Signals	2,340	6,900
Private Street Lighting	4,605	5,020
Shanghai Waterworks	2,815	5,020
Shanghai Tramways	1,905	3,765
Chapoi Co. - usage up to 8,360,000 KWH/Month	2,330	5,640
" " - excess usage	4,195	3,765
French Co. - usage up to 850,000 KWH/Month	2,330	5,640
" " - excess usage	4,195	3,765

x One Rate only

SHANGHAI POWER COMPANY

REF ID: A6570
DP 5000 11147

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ECONOMY CAMPAIGN:

With a view to bringing to the notice of the general public the serious problem presented by the prevailing shortage of generating capacity in the city, it was decided to run a press and radio campaign in an endeavour to encourage non-industrial consumers to exert economy in the use of electric energy.

Press Campaign

A series of eleven notices, including a preliminary announcement, was prepared and on January 17th the announcement was published and followed on consecutive days by the ten notices until the series was completed. These appeared in 10 local newspapers, 6 in the Chinese language and 4 in English. A copy of the complete series is enclosed.

Radio Program

This program was initiated on January 16th by an introductory announcement being read over the air by all the selected stations. This was followed on the 17th and continued until the end of the month by suitably worded spot announcements of approximately 1-minute duration each at regular intervals between 4:30 p.m. and 10:00 p.m. The following are three examples of announcements used:

"It will soon be dark and the demand for electric power will increase as lighting is switched on. Do not switch on more lights than you actually need, nor leave burning any lamps that are not required. Please cooperate in saving electricity."

"This is the hour of peak demand for electrical power. Supply to certain factories in Shanghai is in danger of being disconnected, in order to prevent damage to the generators by overloading. You can all help by using as little electricity as possible right now. Industry in Shanghai suffers every time supply is interrupted."

"Don't use your electric cooker for boiling all the water you need for baths, laundry, etc. This can be done much cheaper with auxiliary stoves burning coal, coke, briquettes, charcoal or oil. These stoves are relatively cheap to install. Train your servants to do as much cooking as possible in this way."

In order to ensure proper delivery, the announcements were recorded on master gramophone records by experienced artists and from these master records duplicates were made for use by the various broadcasting stations. This program was presented by nine stations, eight of which broadcast in the Chinese language and one in English.

RESTRICTIVE MEASURES

Numerous letters are still being received from consumers requesting revision of allotment or preferential treatment with regard to payment of restrictive charges.

Each case is analyzed and if the request for allotment increase is justifiable and in line with the various Regulations set up by the Committee, adjustment is made to permit of reasonable operation without undue hardship.

SHANGHAI POWER COMPANY

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REF ID: A6510
TOP SECRET

Undoubtedly the scheme has attained a certain limited degree of success, but it is felt that it has created a considerable amount of ill feeling among our consumers. Efforts have been made to give fair treatment to all those consumers who have brought their individual problems to our notice, but many others who have endeavoured to adhere strictly without complaint to the plan have suffered hardship. Taking all factors into consideration, the scheme which was given us to enforce has little in its favour and the amount of load released hardly justifies the means employed to attain this end.

COMMENTS: TOTAL KILOWATT-HOUR SALES:

The meter reading months were as follows:

	January	December	Difference
Schedule Rate Consumers	32,49	37,98	+ 16.1%
Bulk Supply Consumers	21,00	30,30	+ 2.3%
Municipal Consumers	22,00	29,00	+ 10.3%

Total kilowatt-hour sales for January were 82,631,735 KWH compared with 79,000,000 KWH in December, an increase of 3,600,000 KWH or 5.5%, corresponding closely to the increase of the weighted reading month. January 1947 sales were only 67,800,000 KWH, but this total was low because the Chinese New Year holidays occurred during the reading period. A decrease may be expected next month as the holidays this year were in February.

Residential & Commercial Lighting Sales amounted to 9,378,708 KWH compared with 7,636,000 KWH the previous month. This is an increase of 1,740,000 KWH or 24% - 8% more than the increase of the reading month.

Previously recorded usage in reading month were as follows:

December 1946	7,500,000 KWH	in Dec. 5 days
January 1947	7,750,000	" 32.1% "

Average daily sales therefore compare as follows:

Daily sales - KWH		
	1946/7	1947/8
December	750,000	74,000
January	1,250,000	750,000

Residential & Commercial Heating Sales increased from 1,000,000 KWH in December to 1,268,000 KWH in the current month. With due regard to the longer reading month, the increase is not much less than normally seasonal although no doubt a certain saving resulted from the Restrictive Measures.

Industrial bulk supply took 31,215,000 KWH compared with 30,600,000 KWH last month, an increase of 515,000 KWH or 1.7%. Most of the increase was due to higher Cotton Mill usage.

Commercial bulk supply consumption increased from 1,180,000 KWH the previous month to 1,230,000 KWH in the current month, in line with the increased reading month.

Small Power - Sales registered 5,810,000 KWH compared with only 4,880,000 KWH last month. This is an increase of 930,000 KWH or 19.6% - 3% more than accounted for by the longer reading month.

SHANGHAI POWER COMPANY

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Shanghai Trams took 1,114,000 KWH, i.e., no change from the preceding month, while sales to

French Trams dropped slightly to 157,000 KWH.

Shanghai Waterworks sales totalled 1,120,000 KWH, 3% less than the December total of 1,382,000 KWH.

Chapei Co. - Sales declined slightly to 10,022,000 KWH, while Intercompany sales increased by 6% to 9,031,000 KWH in line with the longer reading month in the Eastern District.

Public & Private Street lighting sales showed no change, but Municipal Others sales were more than 1% month due to generally increased lighting and heating usage.

Plant for Cotton Mill - Plant

Cotton Mills - Sales increased 1% to 1,700,000 KWH.

The demand for cotton yarn and cotton contines to be good and mills readily absorb all available energy.

According to a statement by "The Cotton Textile Adjustment Committee", the requirements of cotton yarn in Greater Shanghai is 108,000 bales (of 420 lbs.) corresponding to about 24,000 tons of raw cotton per month. The cotton will be distributed to the spinning mills in exchange for yarn which in turn will be rationed to the weaving mills in exchange for piecegoods. Operators fear that the collection of the finished product will be more efficiently handled than the distribution of the raw material and therefore reluctant to use up their stocks until replacements are received. Several mills have voiced their intention to reduce operations by cutting down to three night shifts. Probably these threats are mainly intended to keep negotiations regarding operating costs and a compromise will be struck which will enable the present level to be maintained.

Fleur Mills took 1,494,000 KWH, up 1% with 10,000 KWH lost, receiving 6000, an increase of over 10%. A further moderate increase may be expected as grain shipments to the United States are received as part of the Relief Aid to China.

Rubber Products - also reported practically unchanged at 1,174,000 KWH. A considerable percentage of the products of this industry was previously exported and raw rubber accounted for the proceeds. Lately, the rubber quotas have been reduced and with the wide margin between official and open market exchange rates, export has become less profitable, so operators are adjusting to an increasing extent on the domestic demand. Shipments to outports have been disrupted due to the civil war and the exceptionally dry weather this winter has also affected sales, and retailers are generally overstocked. Most mills are now producing summer footwear for stock. The tyre business, which is less influenced by seasonal variations, is fair. A moderate decline of sales from the industry in general is feared unless cold and rainy weather should increase demand.

Sales to Paper Mills increased by 6% to 1,165,000 KWH. Since imports were restricted a year ago, Paper Mill usage has shown a steady increase as shown by the table below:

SHANGHAI POWER COMPANY

REF ID: A6242
U.S. GOVERNMENT PRINTING OFFICE 1947

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S.P.C. & W.D.P.C. COMBINEDPAPER MILL USES FOR 12 MONTHS ENDING

January 1947	11,000,000 KWH
February "	11,392,54 " "
March "	11,786,000 "
April "	11,170,000 "
May "	12,701,00 " "
June "	13,400,000 "
July "	14,000,000 "
August "	14,370,000 "
Sept.	14,930,000 "
Oct.	15,700,000 "
Nov.	16,700,000 "
Dec.	17,600,000 "

At present very little paper is imported except newsprint which is not manufactured locally. With stocks of imported printing and writing paper diminishing, prospects for this group are good and increased usage may be expected.

Paper Mills sales up 1.9% more than last month and reached a total usage of 54,220 KWH. Sales to this group have also increased steadily during the last twelve months and immediate prospects are good.

Spun Produce continued idle.

Clothing Mills - Sales to this group were 17,540 KWH or 16.5% less than last month.

Ice & Cold Storage Factories - Usage was reasonably down by 38.7% to 3,016 KWH.

Tobacco Factories - The consumption of this industry showed a moderate increase. The total was 262,700 KWH compared with 262,000 KWH the previous month. Both months were post-war levels and indications are that demand will continue good.

Large stocks of imported cigarettes are still available and are on sale everywhere, but restricted imports have forced the prices up so that local producers are able to undersell them and still operate at a considerable profit.

Oil Mills - Sales to this group increased by 46.1% to 80,355 KWH but this was almost entirely due to the transfer to bulk supply from Small Power of 3 new consumers: Heng Fong Silk Weaving Factory, Lei Jen Silk Manufacturing Co. and the Foo Yih Silk Weaving Factory with a total usage of 22,000 KWH. The old consumers in the group barely maintained operations and activities are not expected to increase.

Local hosiery manufacturers have complained of the competition with imported nylon goods and requested the authorities that the sale of these be prohibited. The results of this action are not yet known.

Miscellaneous Textiles - Sales totalled 2,650,000 KWH, a 3.6% decrease from December. Dyeing and Weaving Mills generally maintained activities, while Shirt and Hosiery Manufacturers showed a reduction.

Metal Working Sales were 1,315,000 KWH, showing no change from last month.

SHANGHAI POWER COMPANY

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REF ID: A6529

Most mills barely maintained activities and although the Chinese Aluminium Rolling Mills reduced operations, this was counteracted by the inclusion in returns of two mills formerly on Small Power: The China Rolling Steel Works and the Kuo King Steel & Iron Works with a combined usage of 42,000 KWH.

Woollen Mills took 394,010 KWH, the same as last month. A seasonal decline may be expected during the next few months.

Miscellaneous Other Sales increased by 0.4% to 766,000 KWH. The tendency of Chemical Plants, Breweries and Aerated Water Companies was weak; Coal Briquettes, on the other hand, increased their activities, partly due to the cold season but also due to the high price of electric energy which encourages cooking and heating by other fuels.

POWER SECTION

In last month's report reference was made to a resolution passed by the Power Supply Regulating Committee authorizing the acceptance of applications for power service for daytime operation, provided that spare distribution was available and the load applied for did not exceed 25 H.P.

Details of load applied for were first submitted to Distribution Department Engineering to investigate the possibility of connection without overloading the low voltage distribution networks in the areas concerned.

During the month 10. applications, aggregating 1,003 H.P., were approved for connection in S.P.C. and W.D.P.C. franchise areas. However, owing to a reduction in the coal allotment for Riverside Power Station, and consequently the possibility of increased load reduction being necessary, it was deemed advisable to delay accepting these applications until coal supplies returned to normal. Applications for power service for night operation only are still being accepted.

In the course of the month, the Distribution Department Engineering continued to investigate the possibility of extending the operating hours of "night operation only" consumers. This was referred to in our Report for December. Consequently, by the end of January 213 consumers - total connected load 2,655 H.P. - had been advised in writing regarding the extension of operation to the daytime period.

The following applications for power service were accepted during the month:

New Load: 1. Applications totalling 545 H.P.

The above load includes 3 H.P. for a water pump and temporary loads of 20 and 38 H.P. for building construction. The remainder of the applications, for night operation only, include new or additional loads of 280, 122 and 50 H.P. for rubber factories and loads of from 2 - 30 H.P. covering the following industries: food, tobacco, metals, printing and electrical repairs.

In order to investigate the practicability of paralleling the C.T.I.I. Mills' generators with S.P.C. system, the units at C.T.I.I. Nos. 6, 17 and 19 Mills were in turn run in parallel with our system for a number of hours. The experiment proved successful, but so far no agreement has been reached regarding the conditions governing the operation of these generators to increase the power output in the Shanghai area during the critical evening peak period. As explained in our December Report, the power imported to S.P.C. system would permit an equivalent increase in export to the Hantao Power Co. to improve supply facilities in that area.

SHANGHAI POWER COMPANY

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With the progressive lengthening of the daylight period, it was possible towards the end of the month to increase the operating hours of the cotton mills by reverting to the normal working schedule. For comparison the temporary and normal schedules are shown below:

<u>Mills</u>	<u>DAILY STOPPING PERIOD</u>	
	<u>Normal Schedule</u>	<u>Temporary Schedule</u>
2 Groups	4:30 p.m. - 7:30 p.m.	4:00 p.m. - 7:30 p.m.
2 "	5:30 p.m. - 8:30 p.m.	5:00 p.m. - 9:00 p.m.
2 "	7:00 p.m. - 10:00 p.m.	7:00 p.m. - 10:00 p.m.

The estimated loss of sales potentiality during January, due to the operation of the temporary working schedule, was approximately 250,000 KWH.

Load reduction affecting Chapei, Nantao and Pootung Power Companies is now applied as follows:

<u>When enforced reduction on S.P.C. system is</u>	<u>Load reduction applied to Chapei, Nantao & Pootung Co's is</u>
10,000 KW or less	Nil
In excess of 10,000 KW	3,000 KW

Previously, 1/5 of the total load reduction required was applied to these Utility Companies by interrupting supply, on a rotating schedule, to three of the seven feeders supplying these Companies. The application of load reduction was necessarily restricted to three feeders, as the remainder supply essential services. Consequently, interruption to supply only affected certain areas, but with the new scheme in operation the Chapei, Nantao and Pootung Companies can apply enforced load reduction on a more equitable basis.

The estimated loss of sales potentiality during the month due to load reduction was as follows:

Cotton Mills	3,970,000 KWH
Chapei & French Power Co's	231,000 "
Miscellaneous Industries	630,000 "
	4,831,000 KWH

To the above total should be added the estimated loss of 250,000 KWH due to the temporary curtailment of operating time for cotton mills, making the total for the month 5,081,000 KWH, which compares favourably with last month's total of 6,855,000 KWH. Voluntary load reduction, as applied to cotton mills, is still calculated as lost sales.

When estimating the total monthly loss of sales potentiality, it has been customary to deduct 1,830,000 KWH being the estimated gain due to the introduction of the Sunday working schedule for cotton mills in October 1946. As the present operating schedule is definitely established and likely to remain in force for some considerable time, it has been decided to discontinue making any allowance for the gain in sales previously referred to. In future, therefore, the estimated loss will be that due entirely to load reduction applied during the month.

Load conditions at Riverside improved considerably during the month when compared with December. This is illustrated in the following load reduction statistics for the two months:

SHANGHAI POWER COMPANY

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Estimated loss due to enforced load reduction applied to Cotton Mills

December	3,065,000 KWH
January	1,529,000 KWH

At the beginning of the month the overhaul of one boiler in "B" Station appreciably reduced the available steam generating capacity. When the coal allotment to Riverside was reduced, it was decided to economize by shutting down boilers normally banked, but brought on the line to carry over the sharp evening peak demands. The situation was further aggravated for about three days due to the delivery of a quantity of low grade fuel oil.

During January there were a number of cold, overcast days, with a resultant sharp increase in demand due mainly to heating load. Throughout the month the average potential demand was approximately 155,000 KW in the forenoon and 160,000 KW in the afternoon, while the maximum sustained demand that Riverside could negotiate varied from approximately 142,000 KW to 152,000 KW, depending on availability of generating plant. The highest instantaneous peak demand recorded was 160,100 KW.

No new connections to bulk supply consumers were made during the month, but the following load prospects were recorded:

Name: East China Steel Rolling Mills, Ltd.
Address: Hochien Road.
Load: 250 H.P.
Estimated Maximum Demand: 130 KW.
Estimated Annual Revenue: CN\$1,280,000,000.-

This new steel rolling mill is expected to be ready to start operating about April of this year.

Until additional generating plant is available at Riverside, consumer will be restricted to night operation only and supply will be given at low voltage.

Name: Wu-Kiang Rolling Mill
Address: 1090 Tongshan Road.
Load: 225 H.P.
Estimated Maximum Demand: 120 KW
Estimated Annual Revenue: CN\$1,170,000,000.-

Supply to this new steel rolling mill will be given temporarily at low voltage from the adjacent network for night operation only.

There is a possibility that the plant will be extended at a later date, creating an estimated increase in demand of 100 KW, and should this extension materialize the supply would be given at 6.6 KV, when consumer would be required to purchase suitable 6.6 KV equipment.

Name: National Insecticides & Sprayer Experimental Plant.
Address: 802 Yulin Road.
Load: 600 H.P.
Estimated Maximum Demand: 300 KW
Estimated Annual Revenue: CN\$2,560,000,000.-

This new experimental plant is under the control of the Ministry of Agriculture & Forestry and the installation of machinery obtained from UNRRA is already in hand.

SHANGHAI POWER COMPANY**- 11 -**

Supply will be given at 6.6 KV and consumer has been advised regarding the purchase of suitable equipment.

The consumer has applied to the Bureau of Public Utilities for permission to operate during daytime, but so far no decision has been made.

All revenues mentioned in this report are based on present power rates of CH46,275.- per kWh.

Lower Installation Inspections:

Inspections made during January were as follows:

<u>No. of Inspections during January</u>	<u>Unauthorized Additions</u>
329	32

ADMITTED IN EXAMINATIONS AND INSPECTION

Workshop output:

Cookers overhauled & tested	21 pieces
Motors repaired " "	13 "
Fan Circuit breakers starters repaired	14 "
Water heaters repaired	5 "
Rot. filters fabricated	29 "
Brake cables attended	876 "
Miscellaneous - interde, artificial gas, etc.	70 man-days

Fired factors:

Connections or disconnections - 511
Seven breakdowns occurred. In each case the motor had to be removed due to burning the cable which subsequently caused other faults to develop.

The main job of radiators is proceeding smoothly but slowly, especially in the Central District where, owing to parking restrictions, radiators in most cases have to be carried by hand to a central point and later picked up by the truck. Work is not in full swing with the limited staff available and from now on it is hoped an average 500 - 600 per week.

ADVERTISING NOTICE

Newspapers - Two notices were inserted in all the English, Russian and Chinese newspapers this month:

"Revision of Rates" on January 6, 1948
"Detention Notice" on January 30 and 31, 1948.

A certain amount of work was done by this section in connection with the Press Economy Campaign which is mentioned early in this Report under "General Comments".

CHINA POWER COMPANY

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Various articles appeared in the North China Daily News, China Press and Shanghai Evening Post under the following headings:

"S.P.C. Starts Repair Work In Many Areas"
"New Rates for Power, Gas, Water, Telephone Services Announced"
"Revision of Public Utilities Rate Explained by Tsao"
"Power Penalty Charges Net \$55 Million"
"Shanghai Utilities"
"Workers Idle As Industry Cut"
"Power Drain By Heaters Closes Mills"
"Electric Meter Users Will Have Power Cut Off"
"Power vs. Warmth"
"Textile Mills Idle as Power Used for Heat"

General - One large poster, "Economy in Lighting", with copy-writing in English and Chinese, was painted for job printing, which is now pending approval.

Designs for the Company's "Life Saving" and "Safe Driving" award medals were drawn for the Distribution Department.

The painting of "Turbo-generator" charts is being continued.

J. A. McKinney
J. A. McKinney
Consumers' Engineer

cpo

WESTERN DISTRICT POWER COMPANY OF SHANGHAI LTD., LTD., H.P.A.

March 3, 1948

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,
FEDERAL INC. U.S.A.JANUARY STATISTICSAnalysis of K.W.H. Sales

	This Year	Last Year	Increase	Increase %
Residential Lighting)	1,711,657	1,631,364	80,293	4.9
Commercial Lighting)				
Residential Heating & Cooking)	349,126	639,014	-289,888	-45.4
Commercial Heating & Cooking)				
Bulk Supply Industrial	12,290,850	7,431,044	4,859,806	65.4
Bulk Supply Commercial	60,576	17,033	43,543	255.6
Small Power	3,149,243	2,779,199	370,044	13.3
<u>Public Utility:</u>				
Chapei Co.	1,379,752	1,148,400	231,355	20.1
Private Street Lighting	12,512	11,065	1,447	13.1
Municipal Street Lighting	24,385	23,727	2,658	12.2
Municipal Others	231,503	221,326	8,177	3.7
Total	19,209,607	13,902,172	5,307,435	38.2
Total Units Sold (12 months ending January 1948)	201,889,580	137,154,923	64,735,557	47.2
Total Units Purchased (12 months ending January 1948)	214,481,956	145,092,400	69,289,756	47.8
Distribution Losses (12 months average)	6,231	2,524	0.76	12.7
Maximum Demand for Purchased Power - KW	34,222	30,780		

Analysis of Large Industrial Sales in K.W.H.

	This Month	Last Month	Last Year	Increase % over Last Year
Chinese Cotton Mills	7,449,610	6,895,180	4,869,370	53.0
Other Cotton Mills	3,600	3,300	-	-
Total Cotton Mills	7,453,210	6,698,480	4,869,370	53.1
Flour Mills	309,150	284,250	230,700	34.0
Rubber Products	449,497	405,504	143,075	214.2
Paper Mills	752,764	757,987	93,976	694.3
Tobacco Factories	-	-	-	-
Ice & Cold Storage Factories	10,700	4,300	13,200	26.5
Silk Mills	252,580	242,420	231,160	7.9
Miscellaneous Textiles	2,107,175	2,093,540	1,362,047	54.7
Metal Working	183,818	164,790	110,356	66.6
Woolen Mills	379,580	380,025	306,520	23.8
Miscellaneous Other	386,376	331,873	65,640	488.6
Total	12,290,850	11,374,177	7,431,044	65.4

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CONNECTIONS

No. of Customers	This Month	Last Month	Last Year	Increase during Month
" Refrigerators	22,285	22,165	20,734	120
" Cookers (Hired) x	2,321	2,318	2,238	3
" Radiators (") x	783	783	781	-
" Water Heaters (") x	97	170	321	-73
" Misc. Appliances (") x	27	29	26	-2
" H.P. of Motors (") x	4,986	4,939	4,345	47

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	15,674	15,565	14,774	109
" Heating: Comprising	(6,912)	(7,114)	(7,390)	(-202)
" Cookers	5,725	5,715	5,615	10
" Radiators	771	934	1,422	-213
" Water Heaters	62	65	58	-3
" Miscellaneous	354	350	295	6
" Motors	73,489	69,913	64,846	3,546
" Industrial Heating	1,094	1,099	1,036	-5
Total	97,169	95,721	90,046	3,448

MONTHLY CHG. LIGHT IN CUSTOMERS

	Total All Classes
Total Customers Reconnected	29
Total Customers Disconnected	55
Loss	26
Total New Customers Connected	146
Total Increase During Month	120

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CONTENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	<u>January</u>	<u>December</u>	<u>Difference</u>
Schedule Rate Consumers	32.40	28.83	+ 12.4%
Bulk Supply Consumers	31.00	29.20	+ 6.2%
Municipal Consumers	32.00	29.00	+ 10.3%

Total Kilowatt-hour Sales for January were 19,269,607 KWH compared with 17,736,000 KWH for December, an increase of 1,500,000 KWH or 8.3%, approximately the same as the percentage increase of the reading month. Lighting sales show the highest increase.

Residential Commercial Lighting Sales showed a normal seasonal gain of 12.5% to reach a total of 1,711,657 KWH.

Residential & Commercial Heating Sales were 349,000 KWH compared with 340,000 KWH last month. A heavier seasonal increase is normal.

While the restrictive Measures had little apparent effect on Lighting Sales, they have probably enabled a considerable amount of energy, which would otherwise have been used for heating, to be diverted to industrial services.

Industrial Bulk Supply took 12,790,000 KWH - about 900,000 KWH or 8% more than the previous month. Most of the increase was due to higher Cotton Mill usage.

Commercial Bulk Supply showed a normal seasonal increase of 12.6%.

Small Power Sales registered 3,144,000 KWH, an increase of 9.6% over last month's total.

Chapwi Co. took 3.7% more than in December. The usage was 1,380,000 KWH.

Private Street Lighting sales increased by 7% to 17,512 KWH, while

Municipal Street Lighting showed no change.

Sales to Municipal Others increased seasonally by 10.8% to 231,503 KWH due to higher lighting consumption.

ANALYSIS OF LARGE INDUSTRIAL SALES:

Cotton Mills - Sales to this group increased by 750,000 KWH or 11.3% to 7,453,000 KWH. With one exception, all mills increased activities.

Flour Mills - The Riva Foong Flour Mill used less, the Hoong Foong Flour Mill used more, than last month. The total was 309,000 KWH as compared with 284,000 KWH in December.

Rubber Products - This industry again registered increased usage and reached 49,000 KWH, a new post-war high.

Paper Mills' usage, on the other hand, declined slightly by 2.0% to 752,000 KWH. Most of the Mills increased activities, but reduced operations by the Chung Hoo Paper Products Factory brought the total down.

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Ice & Cold Storage Factories used 16,700 KWH compared with 4,300 KWH last month.

Silk Mill consumption was higher than in December on account of the longer reading month. The total was 252,000 KWH.

Miscellaneous Textiles showed no change as most mills barely maintained activities. The total usage was 2,107,000 KWH.

Metal Working Sales were 11.5% up from last month and reached 184,000 KWH. Few factories showed any increase, however, but the usage of three new consumers, formerly recorded as "Small Power" consumers (with a total consumption of 19,400 KWH), were included in the records of Bulk Supply.

Woolen Mills showed a slight seasonal decline with a total of 379,000 KWH compared with 380,000 KWH in December in spite of the longer reading month.

Miscellaneous Other Sales increased by 16.4% to 386,000 KWH compared with 332,000 KWH in December. Two new consumers, previously on "Small Power" records, were added to the list: Jing Hua Hat Factory - Usage 16,990 KWH; China Synthetic Chemical Works - Usage 19,530 KWH.

POWER SECTION

Applications accepted during the month for connection of power supply were as follows:

New Load: 9 Applications totalling 725 H.P.

The above load includes 120 H.P. for a new steel rolling mill and the remainder for loads of from 3 - 40 H.P. covers the following industries: weaving, metals and fountain pen manufacture.

All applications accepted are for night operation only.

The following load prospects were recorded during the month:

NEW LOAD

Name: New Lung Metal Works
Address: 175 Yenping Road
Load: 360 H.P.
Estimated Maximum Demand: 200 KW
Estimated Annual Revenue: CH\$1,860,000.00

This is a new rolling mill which is expected to be ready to start operating about April of this year. The installation will consist of 150 H.P. for hot rolling, 120 H.P. for cold rolling and the remainder of the load for auxiliary machinery.

Supply will be given at 6.6 KV and consumer will provide a suitable transformer and O.C.B.

Name: Shanghai Iron Works
Address: 950 Robison Road
Load: 450 H.P.
Estimated Maximum Demand: 240 KW
Estimated Annual Revenue: CH\$2,140,000.00

THE CHINESE POWER COMPANY OF SHANGHAI LTD., THE U.S.A.

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The main load will be 400 H.P. for a steel rolling mill with an additional 50 H.P. for auxiliary machinery.

Supply to be given at 6.6 KV will be required about April of this year. Consumer has been advised regarding the purchase of suitable 6.6 KV equipment.

ADDITIONAL LOAD:

Name: Pac Shan Paper Mill
Address: 200 Tungin Road

Additional Load: 300 H.P.

Estimated Additional Maximum Demand: 180 KW

Estimated Additional Annual Revenue: CN\$2,360,000.00.-

The consumer plans to install additional machinery consisting of one paper machine and three beaters, and this will bring the estimated total load demand up to 400 KW.

Supply will be given temporarily at 6.6 KV until the development of our 23 KV system in this area is completed when the supply voltage will be changed. Consequently, the consumer has been advised to purchase a 23 KV O.C.B. and transformer with dual primary winding.

Connection of supply for the aforementioned loads will be given for night operation only until additional generating plant is installed at Riverside.

Above revenues are based on the present power rates of CN\$6,275.- per KWh.

Power Installation Inspections:

The following inspections were made during this month:

<u>No. of Inspections during January</u>	<u>Unauthorized Additions</u>
52	15

J. A. McKinney

cpo

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY
RIVERSIDE STEAM ELECTRIC STATION
MONTHLY GENERATION REPORT
JANUARY 1948

OUTPUT & PERFORMANCE DATA -

	A	B	C	D	E
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	St C Gross Generation Kwh	Overall Heat Consumption Btu/net Kwh
			% of Total	% of Total	
Jan 1948	88,639,613	160,119	39,276,339	41.14	24,069,000 25.22 16,872
Dec 1947	89,282,846	164,368	41,002,116	42.63	20,574,000 21.39 19,090
Jan 1947	71,454,917	139,961	28,977,282	38.09	- - 20,516
Jan 1946	39,169,890	90,185	24,980,865	58.94	- - 20,588
% increase over					
Dec 1947	-	-	-	16.99	-
Jan 1947	24.04	14.40	35.54	-	-
Jan 1946	126.30	77.55	57.23	-	-
% decrease from					
Dec 1947	0.72	2.59	4.21	-	1.14
Jan 1947	-	-	-	-	8.01
Jan 1946	-	-	-	-	8.33

Hourly Station Net Output Kwh	St B Hourly Generation Kwh
Jan 1948 (744 hr)	119,139
Jan 1946 (752 hr)	52,088
% increase over Jan 1946	128.73
	58.92

Remarks:

The better economy compared with December 1947 due to (1) higher percentage of St C generation; (2) better boiler efficiencies; (3) lower back pressure resulting from lower river water temperature.

The lower heat rate compared with January 1947 and January 1946 due to (1) 1/c of St C; (2) 1/c of TG 16; (3) better Station load factor; (4) better equipment conditions.

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SHANGHAI POWER COMPANY

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STEAM-GENERATORS -

SG No	Date o/c	Hours o/c	Type of Inspection & Work Done	Operating Hr since last o/c for Maint	Total Hours during the month Not Available	Total Hours Oper- ated
31	-	0	---	1415	0	744
30	10 11	11	Copos and whistle valve repaired (IDA) - PAF motor rotor rebalanced.	1190	11	732
29	3 19	375	Annual overhaul after 15059 hr operation (DMS) - Feed drum examined, scraped, wire brushed, painted. Boiler & Ec press tested, one side wall tube renewed. Main tubes, arch tubes, wall & screen tubes turbo-cleaned. Sh inlet box opened, scale removed from tube bends. Various valves overhauled, tested. Raffle sealing repaired, ashpit hopper overhauled. Furnace brickwork patched, 1000 bricks renew- ed. PAF & IDF examined. Ec relief valve tested, water alarm checked. All aux motors and starters overhauled. Temp recorder wire & conduit renewed. Main stop valve position indicator repaired.	499	375	351
28	-	0	---	1096	0	744
27	-	0	Aux motors & starters routine cleaned.	1758	0	726
26	10/24/47	744	General overhaul after 8413 hr operation pro- gressing (DMS).	0	744	0
25	3 4	11	RH soot blower master valve changed (IDA) - 2 SB drains overhauled.	1127	649	17
31		6	Front wall repair progressing (IDA)	87		704
24	3 4	28	Leaky Ec repair (IDA)-2 Ec caps changed. 2 Sh caps rejoined. 2 stop valve bypass over- hauled. 1 chemical injection valve changed. Grate washed, 7 ash pusher plates changed. Stoker gear cleaned, 3 stroke adjuster bolts & 6 stroke adjusters changed. SD motor changed. Ph washed. SB system cleaned, lubri- cated. Ec press tested.	207	59	270
24	25	31	Grate & ashpit wall repair (IDA) - RH rear ash- pit wall rebuilt, front wall patched. Ph wash- ed. Grate inspected, 2 dump bar racks & bracket- es, 11 ash pusher plates changed. Stoker gear cleaned, inspected. 1 connecting rod, 4 stroke adjuster bolts, 7 stroke adjusters, 2 cod pes & 2 gauge glasses changed. Aux motors & start- ers cleaned. One ashpit door changed.	1713	104	235
23	17 18	14	LH Sh drain valve changed (IDA) - 1 air valve & RH stop valve bypass overhauled.			504
22		221	Routine cleaning progressing (DMS).			

SHANGHAI POWER COMPANY

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SG No	Date o/c	Hours o/c	Type of Inspection & Work Done	Operating Hr since last o/c for Maint	Total Hours during the month	
					Not Available	Oper- ated
22	24 25 26 28	11 47	Ph washed (IMS) Leaky Ec repair (IDA) - Unit soot cleaned. 4 holes & eroded Ec tubes renewed, header seats welded up. 14 Ec caps changed. Copos valve thermostat changed. Stoker gear clean- ed, inspected. 2 stroke adjusters & bolts renewed. Stoker driving shaft bearings clean- ed, lubricated & adjusted. Ec press tested. Aux motors & starters cleaned, examined.	275		
21	1 10 11	6 16	Ph elements washed, examined (IDA). Sh drain valve renewal (IDA) - 1 Sh drain & 1 SB master valve renewed. Stop valve bypass rejoined.	79		
20	1 22 21 27	7 2 5	Repairs to Ec & stoker (IDA) - 1 dist tube re- expanded, 4 Ec caps renewed. 5 Sh drains over- hauled. 4 stroke adjusters renewed. Ec press tested. Aux motors & starters cleaned, examined. One set ash doors & levers changed (IDA) - stoker gear box glands repacked.	215 270	24	707
18	3 4	12	One upper coal chute & 1 copos valve changed (IDA) - LH blowdown MR valve cover rejoined, pipe patched. Ashpit water isolating valve changed. One broken stoker crankshaft renew- ed. Aux motors & starters routine cleaned.	86	12	285
17	12/23/47 2	31	Repairing of steam legs and leaky tube caps com- pleted (IDA) - 14 main tube caps rejoined. One return tube re-expanded. Sh drain cocks overhauled. 12 Sh caps renewed. Defective rivets on steam leg flanges renewed. Pipes press tested. Grate cleaned, examined. Stoker gear box overhauled. Furnace chamber brickwork made good. SB system overhauled, defective parts replaced. Unit soot cleaned, press tested.	652		
17	18	16	RH Sh drain valve overhauled (IDA) - RH SB master valve changed. All FD dampers cleaned, eased & lubricated. Coal chutes patched. Ashpit water service cleaned, 8 sprayors, 1 set ash doors & levers changed.	195		
20	20	4	Stoker gear repair (IDA) - No. 4 gear box overhauled, 1 shaft & 2 bushes renewed. SD motor changed.	2	53	197
16	3	4	Aux fan engine strainers cleaned, oil changed (IMS)	926	4	702
15	13	456	Partial overhaul after 3362 hr operation progressing (IMS)	313	456	273

SHANGHAI POWER COMPANY

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SG No	Date o/c	Hours o/c	Type of Inspection & Work Done	Operating		Total Hours during the month	
				Hr since Last o/c for Maint	Net Available	Not Operated	
14	3 4	4	Auxiliary fan engine strainers cleaned, oil changed (IMS).	117			
	22	223	Routine cleaning progressing (IMS).	432	227		484
13	10/19/47	7 154	General overhaul after 3249 hr operation completed (IMS) - Drum opened, cleaned, examined and painted. No active pitting or corrosion found. Studs for safety valves hammer tested. Drum studs for check valve and LH water gauge renewed. All boiler tubes turbo-cleaned, examined, in fair condition. All EC tubes turbo-cleaned, examined, 63 pitted or corroded tubes renewed. All front caps removed, headers cleaned internally. 10 corroded nipples on mud box renewed. Sh tubes and headers examined, no scale deposit, one holed tube cut, plugged. Furnace wall repaired, all baffles tightened. All mountings overhauled and tested. Grates overhauled. All riddling chutes renewed. FD dampers eased. Safety and relief valves tested, water alarm checked.	466			
	29	30 24	IDF motor switch overhauled (IMS) FDF motor switch changed.	471	178		439
12	26	26 4	Frozen SB master valves and Copes thermostat repaired (IDA).	372	4		194
11	12/20/47	9 201	Partial overhaul after 3661 hr operation completed (IMS) - Drum opened, examined, no active pitting or corrosion found, paint applied in June 1947 still good. Two bottom rows of main tubes and down comers turbo-cleaned, examined, condition fairly good. Headers examined for scale deposit. Mud box and all nipples cleaned. Sh tubes and headers examined, no scale deposit. One corroded main tube and 4 pitted Sh tubes renewed. Baffles tightened. Mountings overhauled, tested. Center and RH grates overhauled. Unit pressure tested. Safety valves, EC relief valve and water alarm checked.				
	21	21 5	Motors and switches routine cleaned (IMS).	197			
	27	28 14	One holed main tube renewed (IDU).	131	220		417
10	10 11	13	3 leaky EC caps rejoined (IDA).	153			
	26	26 4	Frozen SB master valves and Copes thermostat repaired (IDA).	49			
	28	29 31	One holed main tube renewed (IDU).	13	48		159
9	10 11	14	Leaky Sh caps rejoined (IDA).	1,239			
	21	21 5	Motors & switches routine cleaned (IMS) - Choked riddling chutes cleaned. Burnt FD damper wire renewed.	76	19		304

100%

SHANGHAI POWER COMPANY

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Notes:- 1. Unscheduled Outages -(a) Units taken out immediately (IDU)

<u>SG No:</u>	<u>22</u>	<u>11</u>	<u>10</u>	<u>Total</u>
Times o/c	1	1	1	3
Hours o/c	47	14	31	92

(b) Repairs done on a deferred date (IDA)

<u>SG No:</u>	<u>20</u>	<u>25</u>	<u>24</u>	<u>23</u>	<u>21</u>	<u>20</u>	<u>19</u>	<u>18</u>	<u>17</u>	<u>12</u>	<u>10</u>	<u>9</u>	<u>Total</u>
Times o/c	1	2	2	1	3	2	3	1	2	1	2	1	21
Hours o/c	11	17	59	14	24	8	13	12	22	4	17	14	215

2. Tube Renewals -

<u>SG No:</u>	<u>29</u>	<u>22</u>	<u>13</u>	<u>11</u>	<u>10</u>	<u>Total</u>
Main Tubes	-	-	-	2	1	3
Wall Tubes	1	-	-	-	-	1
Ec Tubes	-	4	63	-	-	67
Sh Tubes	-	-	-	4	-	4
						75

BOILER HOUSE AUXILIARIES -1 - Feed Water Pumps (FWP) -

FWP 26 - Discharge end shaft sleeve tightened.
 FWP 25 - Oil coolers cleaned.
 FWP 20 - Valve FP 20/D3 replaced after overhaul.
 Discharge end bearing adjusted.
 FWP 12 & 15 - Governor cleaned, tested.

2 - Gas (Flue) Washer Pumps (GWP) -

GWP 3 - General overhaul after 5,828 hr operation progressing.
 GWP 4 - Wearing rings, ball bearing and ball bearing housings renewed.

3 - Auxiliary Fans in BH 2 -

IDF 10-12 - Motor alipring short circuit gear, contacts renewed.
 IDF 13-15 - Starter overhauled.
 IDF 13-15 - Starter changed.

RAW COAL HANDLING PLANT -

Tr 1 - Coal grab changed, 2-ton grab installed. Grab shackle plate and 3 pins, operating motor brake pulley, brake lining and 2 operating wire ropes renewed. Faulty traverse motor limit switch cable renewed. Scale tested, balanced.

Tr 2 - Scale tested. Motor and starter routine cleaned.
 Tr 3 - Damaged coal chute and platform repaired. Hoisting and slewing gear overhauled. 2 steel wire ropes for hoisting chute renewed. Main motor contactor pivot pin replaced.

SHANGHAI POWER COMPANY

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HAN COAL HANDLING PLANT - (continued)

RT 2 - Worn coal feed table gears dressed up. Operating brake band renewed. Scale tested.
 BT 2 - Travelling gears repaired. Vertical travelling shaft welded. Motor and starter routine cleaned.
 BC 1,3,11,12,13,14,15,19,20,21,22 - Motors and switches routine cleaned.
 BC 2 - Motor changed for overhaul.
 BC 11 - Renewed 65 ft of 1" piping and 3 valves for water service.
 BC 19 - Motor changed, motor pinion renewed.
 BC 26 - Renewed 46 ft belt, 8 sets fastenings and 2 wood boards for pulleys.
 BC 28 - Broken motor cable and conduit renewed.
 BC 44 - Renewed 20 ft belt, 5 sets fastenings.

FUEL OIL HANDLING PLANT -

FOP 11 - One oil end piston rod changed.
 FOP 10 - One discharge valve changed.
 FOR in BH 2,3,4 & 5 - Tubes cleaned.

PULVERIZED FUEL HANDLING PLANT -

Usual inspection and routine cleaning made.

Ash Handling Plant -

1 - Electric Locomotives (LE) -
 LE 2 - General overhaul completed.
 LE 3 - Faulty trolley collector roller changed.
 LE 4 - Routine cleaned.
 2 - Trucks & Tracks - Maintenance work progressing.

TURBINE-GENERATORS -

TG No	Date o/c	Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
					Not Available	Oper- ated
18	17 18 20 20	62 42	Brush gears cleaned, examined (IMS) - Air and oil coolers cleaned. Worn exciter roller bearing renewed (IDU) - Greasing nipple changed.	1,069 52	112	731
16	3 4	13	Routine cleaning (IMS) - 23 kw and neutral OCD overhauled. Governor control motor limit switch adjusted. Main oil coolers cleaned.	1,148	13	722

SHANGHAI POWER COMPANY

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TG No	Date	Hours	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint		Total Hours during the month			
				o/c	i/c	o/c	Not Available	Oper- ated	
15	12/31/47								
10	11	2	Main B/B links cleaning completed (IMS).			420			
		11	Routine cleaning (IMS) - Governor valve dismantled, cleaned. Main oil coolers cleaned.			223			
16	16	3 $\frac{1}{2}$	Governor repair (IDA) - All wearing parts honed smooth. Clamp on steam range repaired.			128			
23	23	3 $\frac{1}{2}$	Condenser tested (IMS) - 7 tubes plugged.			162			
24	25	5 $\frac{1}{2}$	Condenser tested (IMS) - 3 tubes plugged.			18	28 $\frac{1}{2}$	698	
14	24	8 $\frac{1}{2}$	Routine cleaning (IMS) - Governor cleaned, overspeed trip tested, operated at 3300 rpm. Main oil coolers cleaned.			595			
31	31	3 $\frac{1}{2}$	Condenser tested (IMS) - 12 tubes plugged.			154	12	722	
13	6	7	Worn governor bush changed (IDA).			589			
31	31	1 $\frac{1}{2}$	Air and oil coolers cleaning progressing (IMS).			591	33 $\frac{1}{2}$	702	
12	11/13/47								
18	18	416	General overhaul after 14,730 hr operation completed (IMS) - Cylinder upper half removed, steam rotor and diaphragms examined, bottom half removed, exhaust trunk joint remade, expansion piece overhauled and tested, aliding feet washer adjusted. 3 stages diaphragms (2nd, 3rd and 6th) renewed, other stage diaphragms and nozzle blocks in good condition. All rotor blading condition good, 6th whoul blade rivets good for two more years at least. Bearing metal good, excessive oil clearances readjusted. Alignment checked, distorted coupling faces dressed up, paper liners fitted. All condenser tubes removed, cleaned, condenser int shell painted, top rows of tubes renewed, air and water leaks tested, found tight. Various parts and auxiliaries inspected, overhauled and defected parts repaired or renewed.			186	416	328	
10	17	18	16 $\frac{1}{2}$	Routine cleaning (IMS) - CP 'A' & 'B' motors cleaned, starters overhauled.			1,636	16 $\frac{1}{2}$	720
9	20	20	1 $\frac{1}{2}$	All slipping brushes changed (IMS) - Exciter brush gear cleaned, examined. Main oil cooler cleaned.			516	1 $\frac{1}{2}$	722

SHANGHAI POWER COMPANY

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TG No.	Date		Hours o/c	Type of Inspection & Work Done	Operating hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Oper- ated
6	14	14	6	Brushgear cleaned (IMS) - Main oil cooler cleaned.	406		
	20	20	1 $\frac{1}{2}$	All slipping brushes changed (IMS) - Exciter brush gear cleaned, examined.	130		
	27	27	2 $\frac{1}{2}$	Condenser tested (IMS) - No leaks.	166	10	726
7	2	2	4 $\frac{1}{2}$	Routine cleaning (IMS) - Governor valve cased, cleaned, oil leaks repaired.	494		
	3	4	11 $\frac{1}{2}$	Condenser tested (IMS) - One tube plugged.	19		
	11	11	6 $\frac{1}{2}$	IP balance pipe joint re-made.	151		
	15	15	7	Worm and worm wheel examined (IMS) - Pedestal insulation tested.	77		
	31		2	Routine cleaning progressing (IMS).	369	31 $\frac{1}{2}$	631
5	2	2	2	Cylinder cover manhole joint re-made (IDA).	18		
	20	20	6 $\frac{1}{2}$	Cooling water pipes in bearings tightened (IDA) - Gland steam leak off valve over-hauled. 23 kw and neutral OCB overhauled.	408		
	22	22	1 $\frac{1}{2}$	Condenser tested (IMS) - One tube plugged.	44		
	27	27	1 $\frac{1}{2}$	Emergency valve repacked (IMS).	127		
4	31		23 $\frac{1}{2}$	Air washer gear box repair progressing (IDA).	66	31 $\frac{1}{2}$	653
	1	1	2	Brushgear routine cleaned (IMS).	174		
	18	19	16	Routine cleaning (IMS).	374		
1	23		216	General overhaul after 12,864 hr operation progressing (IMS).	72	234	446
	12/31/47		1	Brushes renewed (IMS).	80		
	3	4	19	Routine cleaning (IMS).	18		
	10	11	5 $\frac{1}{2}$	Governor examined (IMS).	116		
	20	21	22 $\frac{1}{2}$	Routine cleaning (IMS).	156	49	491

Notes:- Unscheduled Outages -

(a) Units taken out immediately (IDA) -

TG No:	18	13	Total
Times o/c	1	1	2
Hours o/c	4 $\frac{1}{2}$	31 $\frac{1}{2}$	36 $\frac{1}{2}$

(b) Repairs done on a deferred date (IDA) -

TG No:	15	2	Total
Times o/c	1	3	4
Hours o/c	3 $\frac{1}{2}$	31 $\frac{1}{2}$	35 $\frac{1}{2}$

SHANGHAI POWER COMPANY

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TURBINE HOUSE AUXILIARIES -

1 - Circulating Water Pumps (CWP) -

CWP 14 - General overhaul after 10,360 hr operation completed.
CWP 15 - General overhaul after 11,026 hr operation progressing.
Motor windings cleaned, switch overhauled, O/L relay
cleaned, tested.
CWP 21,24,26 - Stuffing boxes repacked.

2 - Service Water Pumps (SMP) -

SMP 4 - Steam throttle valve repacked.
SMP 5 - General overhaul after 11,911 hr operation progressing.
Motor windings cleaned, switch overhauled.

3 - Air Compressors (Cp) -

Cp 1 - Belts tightened.
Cp 3 - Routine cleaned, bearings adjusted.

FLOATING EQUIPMENT -

Coal Lighters (CL) -

CL 21-23 - General overhaul progressing.

MISCELLANEOUS MECHANICAL EQUIPMENT -

1 - BH 4 Steam Range: Valve packing and one valve bridge renewed
on MR 4/4 and MR 5/4.

2 - BH 2 SW Line: Several LP frozen valves overhauled.

3 - TW Booster: Pump overhauled.

4 - Office Hot Water Boiler: Boiler opened, cleaned. 2 Heaters
cleaned int of scale. Relief valve ground in.

5 - BH 4 Lift: Wire ropes examined, lubricated.

ELECTRICAL EQUIPMENT -

1 - 23 kw SH Equipment -

BP 1, BS 2-3, Ro 3, BP 3 & Chapei - OCB overhauled.
Aux North B/B - B/B routine cleaned. Cellwork and isolating
link for the following cleaned, examined:

BS a, AD 13, AD 14, BP 5, AE 25, AE 26, DP 6, AA 52,
AG 20, AG 21, BP 7, AG 17.

Aux South B/B - B/B routine cleaned. Cellwork and isolating
link for the following cleaned, examined:

IT 1, AR 36, IT 2, ST 7, BP 1, TG 7, ST 8, AB 3, AB 4,
TG 16, BP 2, AB 9, AB 10, HST 1, AB 7/8, BP 3, AC 6/31,
AC 23, AC 24, BS A.

Sections 3, 4, 5 & 6 Main B/B - B/B routine cleaned. Cellwork
and isolating link for the following cleaned, examined:

AC 33, Ro AN, HST 2, Al 53, BS 2-3, Ro 3, BS 3-4,
DP 4, Ra 4, BS 4-5, Ro 5, BS 5-6, Ro 6, BS 6-7.

SHANGHAI POWER COMPANY

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2 - Converters -

HC 1, 2 & MC 4 - Brushgears cleaned, worn brushes changed.
HC 3 - Undercutting and machining of commutator progressing.

3 - Transformers -

ST 7 - 23 kv & 350 amp OCB overhauled.
ST 13 & ST 16 - 6.6 kv & 350 amp OCB overhauled.
HST - Earth fault on control cable located & repaired.

4 - Station 'C' Equipment -

IDF, FDF, PAF & Ph - Motors, switches, controllers,
routine cleaned.
FFF, SC & FF - Motors and switches routine cleaned.
PMF 5, 6 - Control relay broken pins renewed.
VF 7, PM 7, PMF 7 - Motors, switches, controllers,
routine cleaned.
VF 7 - Emergency stop button installed.
EF 7 - Defective motor bearing repaired.
PMF 7 - Emergency stop button re-located.
CTP - Alarm and signalling system re-installed.
BH 5 Lift - All equipment routine cleaned.

5 - Miscellaneous -

(a) Construction of smoke signalling panel progressing.
Multicore cables for relays installed in position.
(b) Indicating lamp boxes for BH 5 root blowing and
ashing installed.
(c) Starting switch for coal briquette motor overhauled.
(d) Defective BH 4 lift brake, solenoid repaired.

RIVER/SIDE WORKSHOP -

1 - Overhauled 14 motors, 3 exciter armatures, 2 DC generators,
1 synchronizing motor, 6 transformers; machined 60 copper
socket adaptors, 230 copper connectors, 170 commy segments,
2 MS motor shafts, 50 copper contacts, 32 copper sockets;
made 4 CI pole brands, 40 grid type fuses, 10 cable potheads,
2 copper jointing sleeves, 150 copper flag sockets, 10 copper
tabular cable sockets, 21 moving sparking contacts, 4 flexible
copper connections, 12 sets anchor brackets, 50 sets brass
safety washers, 30 GI tags, 3000 sticks solder, 600 cone
insulators; repaired 1 short circuit gear; reconditioned
1 set pole transformer links, 6 copper joint sleeves,
29 MS back plates.

2 - Machined 1,152 MS ASTH & brass bolts, studs and screws,
400 brass bolts and nuts, 250 MS EC tubes, 200 brass
plugs, 200 fibre bushes, 150 brass expansion joints,
150 MS nuts, 100 steel tube cleaners, 130 MS pipes and
pipe ends, 84 nipples, 94 CI flanges, 613 miscellaneous
articles for various purposes; emery finished 170 EC tubes
and caps; ground CI transformer shells, 2 steel cutting
blades; bent 10 binding wire bands; made 9 MS coal pipes,
5 CI sprocket wheels with MS shafts, 4 MS globe and angle

SHANGHAI POWER COMPANY

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valves, 4 GI buckets, 6 MS crank shafts, 3 MS 'T' pipes, 1 set GI face machine, 2 MS strainers, 2 MS angle stand, 30 sets steel links, 12 GI cones, 4 ash buckets, 3 steam heaters; repaired 2 bolt cutters, 1 screw jack, 1 masonry saw cut machine, 48 burner tips, 6 GI gear boxes, 1 brass bush, 6 FO pipes, 28 pipe flanges, 1 governor link, 20 sets brass bushes, 1 coal crusher machine; overhauled 1 blower, 3 steam valves, 2 Copea valves; tested 8 steam pipes, reinstalled 17 sets bearings, renewed 1 GI impeller and brass sleeves, 1 set LE large wheels; balanced 1 UDF impeller.

3 - Made and fitted roof truss for BC 41 & 42 housing, 6 MS Ph hoppers, 1 MS hopper; made 2 MS baffles, 1 MS door, 1 MS cable channel, 1 MS funnel, 2 MS covers; renewed 1 MS Ec baffle, SG 23 wall capping plates, BC 26 steel structure; bent 19 MS pipes, 20 boiler tubes, 4 'U' bolts, 1 MS plate, 1 copper tube; straightened 4 MS shafts, 2 MS angles, 4 MS spanners; annealed 125 boiler tubes, 300 Ec tubes, 252 Ec cap bolts and nuts, 28 MS bolts and nuts, 8 copper tubes; tempered 50 steel expander rollers, 36 steel springs; forged 6 MS pinions, 60 cold steel chisels, 24 MS bolts and nuts, 18 copper fixed sparking contacts, 403 MS and brass bolts and nuts, 928 MS articles for various purposes; repaired 260 tube cap bridges, 2 bolt cutters, 96 steel chisels; cut 28 MS plates and bars.

4 - Electric welded 48 pipe flanges, 2 pipes, 2 transformer tanks, 3 steam heating radiators, 50 FO tube clamps, 4 MS angle guard frames, 2 MS funnels, 2 MS plates and gratings, 250 concrete pole base frames, 5 shafts, 3 valve bodies and seats, 2 gear wheels, 40 cross arms, 13 square stay clamps; gas welded 6 gear box bearings, 1 pump casing, 2 valve seats, 1 trap chest, 26 links, 38 pipes, 80 slip containers, 3 FO pipes, 4 window frames; gas brazed 10 sets transformer tails, 40 grid fuses, 7 brass impellers, 9 brass trolley wheels; gas refaced with stoddite 32 IDP blades, 3 valve seats; galvanized 1350 and tinned 626 articles for Distribution Department.

5 - Foundry produced the following castings:

22,216	lb	cast iron
320	lb	HD brass
5	lb	GP brass
2,135	lb	brass ingots
620	lb	copper ingots

6 - Building & Wharf Maintenance:

- (a) Repaired window frames of BH 4 and Office Building.
- (b) Maintenance work to all plumbing and piping work progressing.
- (c) Removed steel windows in Station 'C' 5th floor and upper half ventilators on TH roof.

SHANGHAI POWER COMPANY

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- (d) Construction of retaining walls on 3 sides of Coal Storage 'A' completed.
- (e) Reroofing of TH progressing.
- (f) Reconditioning and decoration of Conference Room completed.
- (g) Extension of Workmen's Service Building progressing (80% completed).
- (h) Renovation of parts of BH 4 walls progressing (20% completed).
- (i) Glazed 1300 missing window panes in Station.
- (j) Renovation of Riverside Inquiry Office and installation of barriers and turnstile progressing (70% completed).
- (k) Erection of brick housing for BC 41 - 42 progressing (70% completed).
- (l) Erection of cable duct near TG 7 progressing (70% completed).

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1319 including 19 Foreign and 80 Local Agreement, 39 Russians, 9 Subsidiary Staff (Foreign Watchmen), 23 Chinese Apprentices Engineers, 1 Student Engineer and 1148 Chinese Staff.

No major labour troubles were reported during the month and it can be said that the general standard of work has improved slightly.

The Labour Union held an inaugural meeting on January 8, and a number of workmen were given leave of absence by the Management to attend this meeting which was held for the purpose of electing a new body of Union officers. Switchman GR 11 was elected to serve on a full time basis as Riverside Branch representative. This was agreed to by the Management and a new switchman has been assigned to take over his duties in the Control Room.

Some nine Trade Apprentices concluded their training period on January 21, following which a meeting was held at the Head Office and recommendations were submitted to the Management on this subject.

The Student Engineers at present on duty at the Rotarty Board have now reached a standard comparable to the Russian Switch Board attendants. Further training will be continued to make them proficient in 'Starting' and 'Stopping' the Rotarty Converters, which operations were not called for from the Russian personnel.

SHANGHAI POWER COMPANY

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On completion of their four year training period, these trainees could be considered as Rotarty Operators on the Regular Staff and their special educational training would automatically cease.

The survey of requirements for the number of rubber boots and raincoats has now been completed.

Complaint lodged by the workmen alleging the Company's briquettes as being poor in quality was not considered as fully justified, but higher grades could be made available at a correspondingly higher cost. The main complaint being against the reputed excessive smoke, the use of riddlings in the mixture could be eliminated and same replaced by anthracite; tests on various grades to be undertaken.

GENERAL -

Staff -

During the month we lost the services of two Operation men - one Charge Engineer (died) and an Assistant Charge Engineer.

An Engineer-Trainee after satisfactory completion of his 3-month training period was engaged as an Assistant Engineer in the Machine Shop.

The training of BH Attendants is proceeding very satisfactorily, and consideration is to be given to the engaging of additional men for training.

Operation -

Record Daily Generation - The plant continued to be operated at maximum output of available equipment, the maximum generation for the month occurred on January 22, 1948, ie., 3,294,508 Kwh.

Our total station net output decreased by 0.72% from last month, namely 88,639,613 Kwh as against 89,282,846 Kwh, this decrease being due to less Station 'B' generation, TG 4 o/c for general overhaul despite approx 17% increase in Station 'C' generation.

The hourly station net output increased by 0.24% from 145,740 Kwh to 146,090 Kwh.

The load factor based on gross generation decreased from 81.88% in December to 81.31% for January.

SG UNITS -

SG 31 -

This unit operated very successfully throughout the month having completed 13,094 hours continuous operation.

SHANGHAI POWER COMPANY

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Apart from excessive and increasing pressure draft (now 3 in.) across the preheater which indicates an appreciable degree of clogging, it would appear that we could look forward to a much longer run.

It is proposed to take this unit off load during the Chinese New Year period for thorough cleaning.

During the month we were forced to alter our optimum fuel ratio on this unit, as owing to an acute coal shortage we had to reduce the coal fired to this unit by 100 tons daily with consequent increased oil consumption of approx 50 tons daily.

Whilst this alteration in fuel ratio, now 60% oil and 40% coal increased our slagging problems considerably, we were able to maintain the unit in successful operation.

We have to record the lifting of a safety valve on the LH superheater outlet during light boiler loading; after a very short time the valve reseated itself and no further difficulties in this respect have been encountered.

General -

As usual, a considerable amount of maintenance and repairs were carried out on SG units, a total of 2,765 hours being spent upon repairs and overhauls of all units. The major overhaul including re-headering of SG 26 is proceeding satisfactorily, the workmen have frequently to be taken away from this unit for more urgent work.

The unscheduled outages show a decrease from previous month, namely 3 as against 5, the deferred outages show an increase, namely 21 as against 7 for previous month.

The total hours SG were o/c for unscheduled and deferred outages show a decrease, namely 307 hours as against 542 for previous month, and were made up as follows:-

Unscheduled Outages - 92 hours as against 457 hours.
Deferred Outages - 215 hours as against 85 hours.

Tube renewals registered a considerable increase, namely 75 as against 12 for previous month.

Major maintenance work for the month consisted of the following:-

SG 29 - o/c 375 hours for annual overhaul; completed.
SG 26 - o/c 744 hours for general overhaul; work progressing.
SG 15 - o/c 456 hours for partial overhaul; work progressing.
SG 13 - o/c 154 hours for general overhaul, 63 Ee tubes renewed;
completed.
SG 11 - o/c 201 hours for partial overhaul; completed.

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TG UNITS -

Major overhaul of TG 12 completed and unit in successful operation.

Major overhaul of TG 4 unit after 12,864 hours operation commenced on January 23.

Apart from TG 4 and TG 12, all work on TG units was of a routine nature this month, and as in previous months, practically all such work has been carried out at week-ends and other off-peak periods thereby necessitating considerable overtime payments.

Apart from TG 4 and TG 12 which were o/c for general overhaul, the total hours TG units were o/c for all causes, amounted to 258 $\frac{1}{2}$ hours only.

Unscheduled Outages - 2 - totalling 36 $\frac{1}{2}$ hours.
Deferred Outages - 4 - totalling 35 $\frac{1}{2}$ hours.

ELECTRICAL -

Electrical work during the month was mostly of a routine nature.

The repairs of two Westinghouse 4200 kva Transformers by an outside Contractor are proceeding slowly. This work is receiving regular supervision by our engineers.

Designs and specifications for main office lighting circuits in progress.

FUEL OIL SUPPLY -

Fuel oil consumption for the month totalled 31,117 long tons, the maximum daily consumption being 1,090 tons and average daily consumption 1,003.77 tons.

WORKSHOPS -

The Workshop continues to be overloaded with work necessitating considerable overtime and the placing of work with outside Contractors.

The Winding Shop is heavily loaded with repair work, approx 6300 Kva of Transformers, 4000 hp motors and 2000 Kw of DC equipment undergoing repair.

REHABILITATION & CONSTRUCTION -

Erection of platforms above underfeed stoker gear - SG 18, 20, 22 & 24: completed.

Construction of reinforced concrete retaining walls - Coal Storage 'A': completed.

SHANGHAI POWER COMPANY

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Conference Room - reconditioning and decoration: completed.

Renewal of 4 Ash Chutes, Painting, etc, at 1st Wharf: completed.

Re-roofing of Turbine House: Work above Pump Bay No. 2 - 100% completed. Control Room Roof - 100% completed. Work above Turbine House - 60% completed.

South Wing Extension Workmen's Service Building. Dwg 21/342, sheets 40-41-42 - progressing, 80% completed.

Renovation of parts of the North, South, East and West Walls of Boiler house No. 4 as shown on Drawings - progressing, 20% completed.

Glazing of missing window panes for Station - 1300 panes set.

Renovation of Riverside Inquiry Office and Installation of Barriers and Turnstile - progressing, 70% completed.

General overhaul of Coal Lighter Nos. 21-23. - progressing. 80% completed.

Erection of Brick Housing for BC 41-42 - progressing, 70% completed.

Erection of cable duct near TG 7 as per Dwg. HX-D-23/315 - progressing, 70% completed.

Supply of electrodes, tools, labour, etc, to carry out the building up by welding of 1100 tube holes and 50 nipple holes on 100 economiser headers - progressing, 30% completed.

TG 6 - ex Hongkong 10,000 kw Unit; equipment arrived on site and suitably stored.

TG 11 -

- (1) Condenser returned to original position on Mat.
- (2) Patch put on both outer sides of condenser body at the junction of the vertical and horizontal flanged joints.
- (3) Re-conditioning condenser water-boxes in progress.
- (4) Erection of pedestal re-inforcing steelwork and formwork commenced.

FUEL -

Coal receipts were 9,154 tons during January, made up of two kinds of coal; 17,362 tons were burned and 1342 tons issued by Stores, making a total of 17,496½ tons. Total stocks on February 1, 1948 (8.00 am) were 13,037½ tons, consisting of 10,806½ tons on mechanical storage, and 2,231 tons in bunkers. Coal deliveries during the period were 8,342½ tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 31,010.59 tons during January and 31,117 tons were burned, thus decreasing stocks on February 1, 1948 (8.00 am) to 2,410.08 tons.

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MUD DREDGING -

During the month 4,640 cubic yards of mud (29 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

COKE & BRIQUETTES -

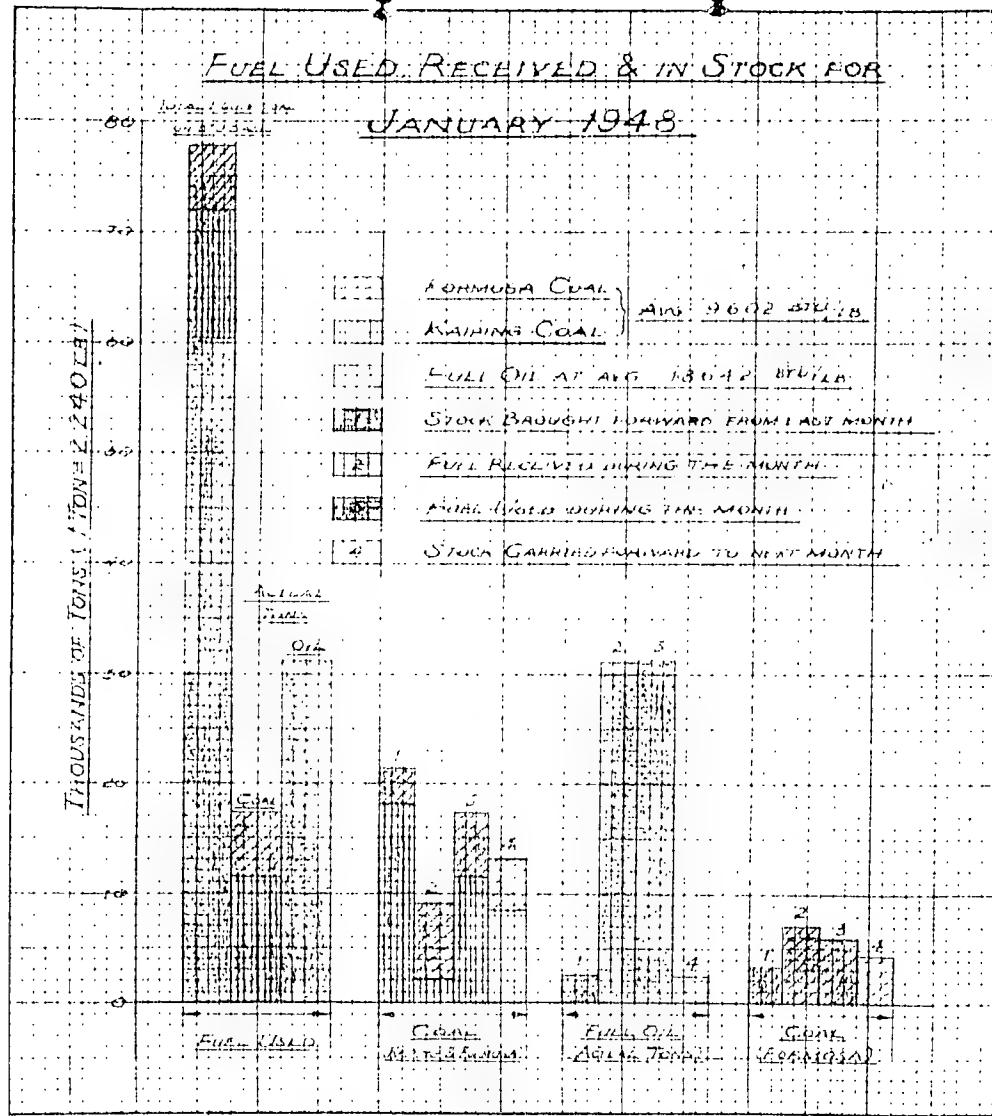
During the month no coarse coke was recovered from ashes, and 125,400 lb issued for Company use, leaving 701,927 lb in Stores on February 1, 1948.

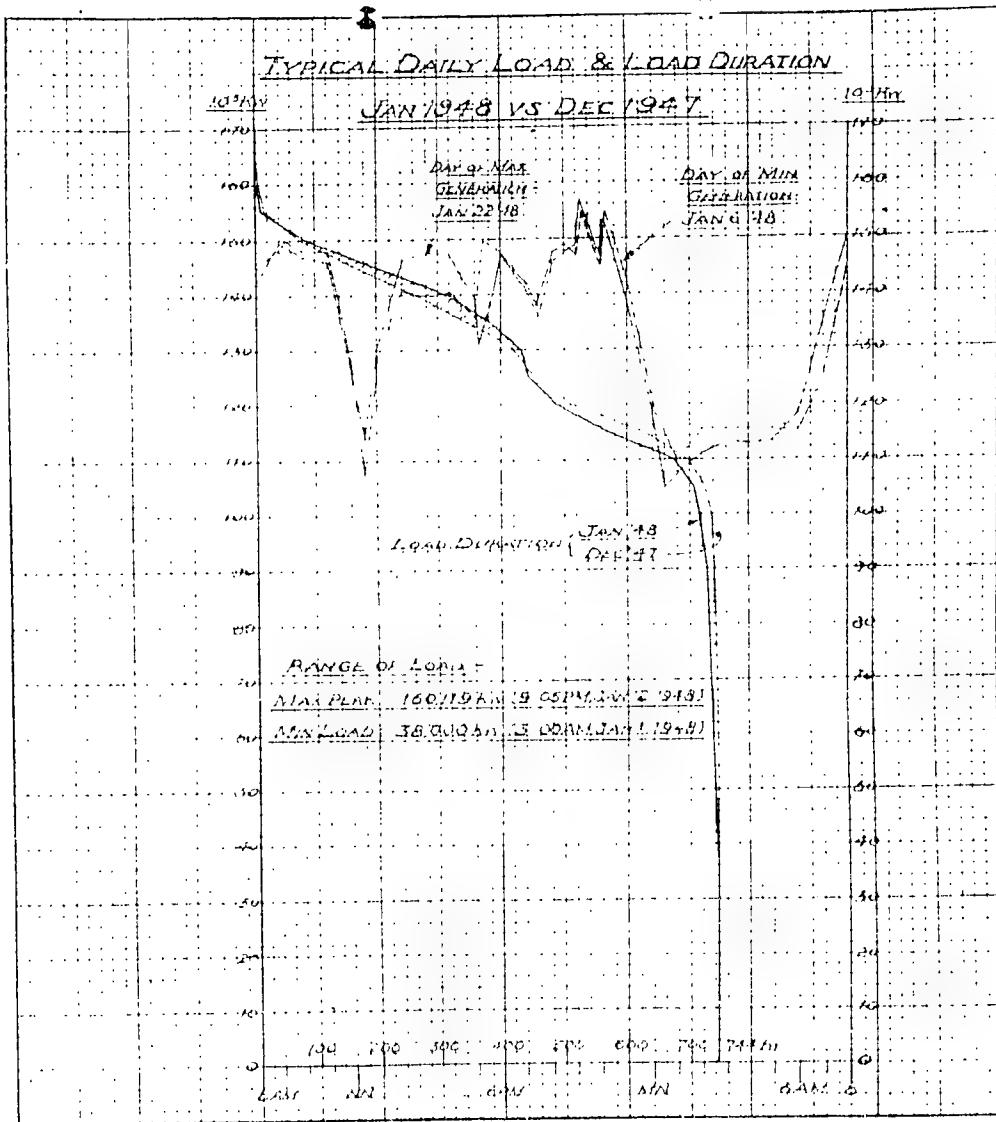
During the month 404.43 metric tons of anthracite coal was received from local suppliers and 121.20 metric tons of anthracite issued for the manufacture of briquettes for sale to employees. Total amount of briquettes made was 345.8 metric tons, of which 320.8 metric tons were issued.

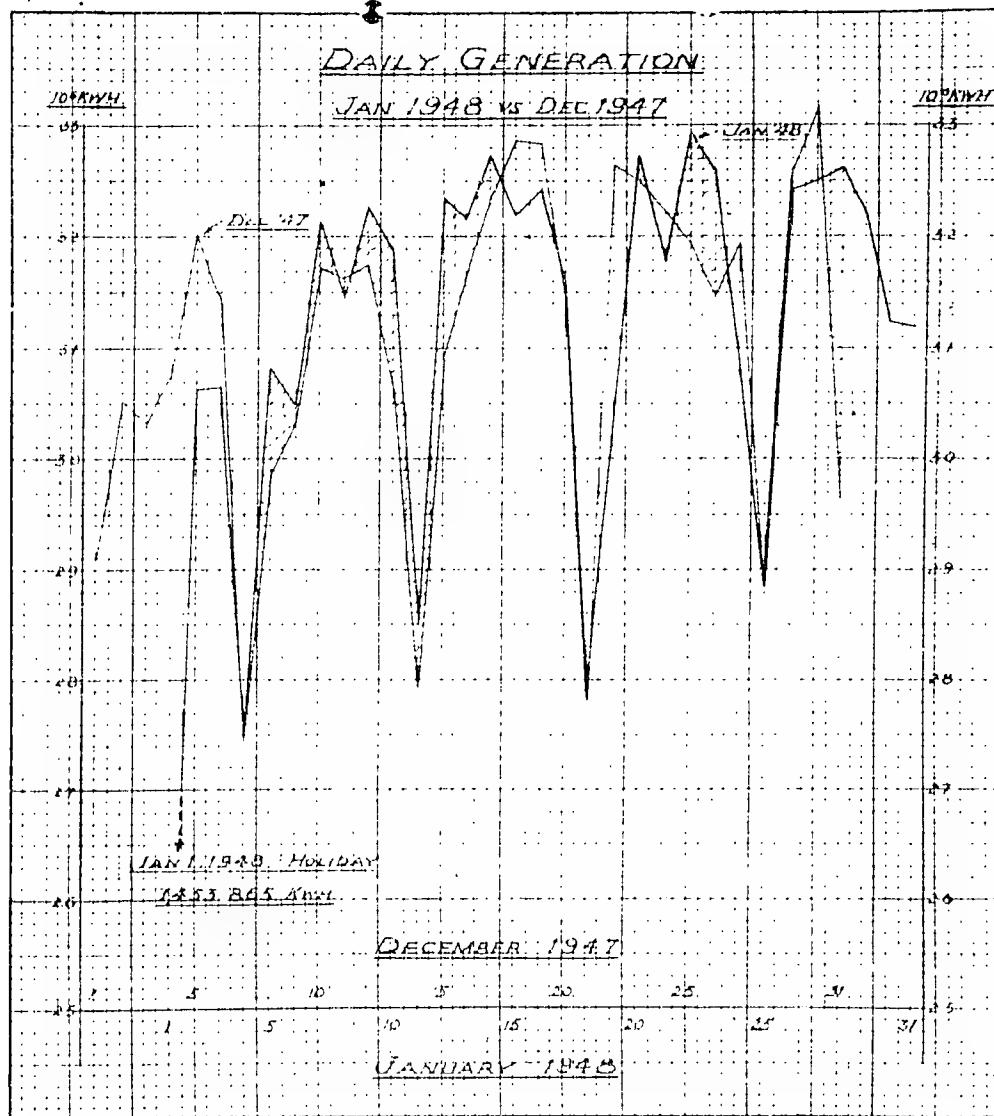
C. J. Please
C. J. Please

CJP/b
Encl: SG Water Report
TG Oil Report
Characteristic Curves

Shanghai, February 28, 1948.







RIVERBIDE SHANGHAI ELECTRIC STATION
SHANGHAI POWER COMPANY
CHEMICAL LABORATORY

BOILER WATER ANALYSIS 1948

DATE 194

TEST NO.	TEST TIME	TEST NUMBER	TEST TOTAL	SODIUM	MOLYBDIC ACID	NITRATE	SULFATE	CHLORIDE	PH	CHEMICAL ADDED		REMARKS	
										AMOUNT	TYPE		
1													
2													
3													
4													
5													
6													
7													
8	9	91	92	263	2.8	0.15	5	16.6	5.95	24	48	344° 6 CB	
9	10	70	68	255	3.5	0.45	6	10.5	5.94	6	8	114° 2 CB	
10	11	71	72	255	6.5	2.95	5	10.6	5.99	26	52	373° 4 CB	
11	12	57	74	222	3.0	2.15	6	16.5	5.98	6	12	305° 6 CB	
12	13	60	65	244	2.0	2.50	8	10.6	7.72	26	56	376° 6 CB	
13	14	116	135	106	6.2	3.5	4	15.9	5.55	5	44	68° 4 CB	
14	15	12	161	370	1.1	1.65	0	10.7	5.95	14			
15	16	91	115	222	1.9	2.65	0	10.7	5.95	14			
16	17	55	57	72	1.4	2.9	0	10.7	5.95	14			
17	18	17	19	63	250	2.9	5	11.1	5.95	14			
18	19	59	72	355	3.4	1.05	15	15	5.95	14	45	55° 48°	
20	21	51	97	203	2.6	0.8	17	10.6	5.95	12	23	55°	
21	22	49	53	435	5.0	1.10	12	10.5	5.95	14	50	72°	
22	23	53	63	105	1.6	3.7	21	10.7	4.95	5	15	56° 24°	
23	24	57	67	63	41.9	5.7	145	23	10.9	5.95	7	21	56°
24	25	61	76	51.8	9.4	1.4	63	25	10.7	5.95	3	15	
25	26	54	61	51.8	4.0	1.65	11	21	10.8	25	15	50	
26	27	56	57	169	2.2	0.85	23	10.6	7.62	25	5	55°	
27	28	52	60	154	1.9	2.74	25	10.6	8.05	23	6	44°	
28	29	52	60	151	2.4	1.95	24	10.6	5.95	21	10	32°	
29	30	48	63	193	2.3	1.73	28	10.6	7.85	23	23	24°	
30	31	55	63	31	0.4	51	59	5.8	10.9	5.95	51	21.1	36°
31	Avg	53	73	111	35	4.7	111	55°	47	111	68°		

LOVEDALE
OPERATING ENGINEER
MANUFACTURERS ENGINEERS
GENERATION UNIT
TELETYPE
COMPUTER PROGRAM

RIVERSIDE STEAM ELECTRIC STATION

TURBINE OIL SERVICE DATA

JULY 1948

DATE FOR JOURNAL

TG No.	OPERA- TING HR	MAKE-UP		CENTRIFUGE OPERATION			LABORATORY REPORT			REMARKS
		44°	DESCRIPTION	HR	DRY SEPAR. GAL	SOLIDS IN PER 1000 GAL	WATER L	VISCOSITY 100°F P/SAYWT	ACIDITY DEGREES KOH	
10	31							.058	.32	
16	722	26	DTE LT 797					.064	.14	
15	728	25	DTE LT 797	116			424	.84	.4	
14	722	28	DTE LT 797					.90	.3	
13	722	5	DTE LT 797					.289	.8	
12	723	20	DTE LT 797					.1	.32	
11										
10	723							.13	.24	
9	722	24	Tycol LT					.172	.6	
8	723	26	Tycol LT					.11	.52	
7	721	31	DTE LT 797					.11	.6	
6										
5	721			605	1.9	1.7	19.3	.11	.6	
4	722			465	5	11	16.1	.07	.2	
2								.12	.6	
1	.91	20	Tycol	x	23.7					

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL	
	DATE	GAL	DESCRIPTION	OPERATING HR	BULKUS IN 1000 HR	SOLIDS IN 1000 HR	WATER L	WATER L/1000HR	TOTAL GALLONS	GAL PER 1000 HR	HR PER PER GAL	
10	v 46	576	Mo Tycol LT	5683					102	18	.56	5603
10	v 46	940	DTE LT 797	8349	494	59	1513	181	312	37	.27	8349
15	Aug 38	946	DTE LT	66724	2158	32	19966	150	2318	34	.29	18435
14	June 37	927	Shell BSA	69791	3776	54	13330	192	2703	39	.26	18746
13	Mar 47	103	DTE LT 797	6098			4	1	65	11	.94	6098
12	Apr 37	111	DTE LT	62554	36	1	12		630	10	.100	328
11												
10	June 36	1280	Tycol LT	70802	690	10	1262	18	2089	29	.34	16327
9	July 46	590	Mo Tycol LT	14071	227	16	495	35	345	25	.41	17899
8	Sept 36	580	Tycol LT	70183	3113	44	5240	75	2267	32	.31	15398
7	July 47	339	DTE LT 797	3675					162	44	.22	3675
6												
5	July 46	250	Mo Tycol LT	11625	386	33	7551	65	256	22	.45	294
4	June 46	250	Mo Tycol LT	12864	537	42	16093	2800	156	12	.03	12864
2									352	40	.35	3524
1	Aug 36	296	Old Shell	8917								

3 12 - Overhaul completed this month. Oil batch drained off, centrifuged. All oil piping dismantled and cleaned. Oil tank and bearing sump cleaned. Oil cooler baffles partially renewed. Tube nest boiled out in washing soda. Cooler pressure tested to 50 psi.

AP 220 (Rev 2)

SHANGHAI POWER COMPANY

January 1948

SHANGHAI POWER COMPANY AND
WESTERN DISTRICT POWER COMPANY OF SHANGHAI
FEDERAL INC. USA

DISTRIBUTION DEPARTMENT
MONTHLY LETTER FOR JANUARY 1948

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SHANGHAI POWER COMPANY

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION(A) SERVICE FAILURES AND TROUBLE CALLS(1) Major Service Failures(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside

Date	Jan 3	Jan 9	Jan 10	Jan 12	Jan 14
Area affected	SPC	SPC	SPC	SPC	SPC WDPC
Supply from Substation	Yangchow Tonquin	Tonquin	Yangchow Tonquin	Yangchow Tonquin	Robison Tonquin
Feeder	C 5 CG22, 23	CG 101	CG 101 C 5 CG103	9 feeders	NWK 1 & 2 C 7 3 8, 9
Customer	Shan-tai 4 Tun, Yih	Sung Siu	Shanghai 5 Shan-tai 4 New China Text	9 customers & LV networks	NWK 1 & 2 NWK 6 & 7 NWK 5
Duration of supply interruption	56 mins to 1 hr 2 mins	16 mins	5 mins to 10 mins	1 hr 13 mins to 2 hrs 28 mins	40 mins to 1 hr 41 mins
Esti- mated KVA-HRS Lost	Company's area	PM 4160	PM 1150	AM 693	PM 27925
	Chapei				
	French				
	Total	4160	1150	693	27925
Insufficient electrical and/or steam generating capacity	E	E	E & S	E & S	E
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Jun 15	Jun 17	Jun 19	Jun 19	Jun 20
Area affected	SFC WDEC Chapei	SFC	SFC WDEC Chapei	SFC WDEC Chapei	SFC
Supply from Substation	Yangtzeow Tonquin Robison	Tonquin	Tonquin Robison	Riverside Yangtzeow Tonquin Robison	Yangtzeow Tonquin Shanghai 2/3
Feeder	16 feeders	CGO, 19/21 CG 101	CG 103 NWK 1 & 2	9 feeders	9 feeders
Customer	16 customers & LV networks	Houk Chang Wing On 2 NWK 3 Sung Sing	New China Text NWK 1 & 2	8 customers & LV networks	8 customers & LV networks
Duration of supply interruption	26 mins to 3 hrs 36 mins	14 mins to 2 hrs 40 mins	13 mins to 1 hr 45 mins	1 hr 23 mins to 3 hrs 25 mins	10 mins to 33 mins
Estimated NIA-IRS Load	Company's area	AM 3,512 E 3,512	AM 12,710 E 12,320	AM 37,960 E 4,970	
	Chapei	" "	" "	" 1,920	
	French				
	Total	71,132	12,710	48,240	4,970
Insufficient electrical and/or steam generating capacity	E	S	S	E	E
Remarks	AM - refers to morning our load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Jan 23	Jan 24	Jan 25	Jan 26	Jan 27
Area affected	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC Chapei
Supply from Substation	5 substations	13 substations	Riverside Yangchow Roosien	13 substations	8 substations
Feeder	11 feeders	29 feeders	1 feeders	21 feeders	21 feeders
Customer	10 customers + LV net- works	31 customers + LV net- works	34 customers + LV net- works	21 customers + LV net- works	21 customers + LV net- works
Duration of supply interruption	73 mins 12 mins	73 mins 31 mins	10 mins 1 mins	12 mins 23 mins	5 mins 36 mins
Estimated KVA-hours lost	Company's area Chapei French	AM 16,000 PM 14,400 EV 1,782	AM 16,000 PM 14,000 EV 1,782	AM 39,100 PM 14,000 EV 13,716	AM 66,360 PM 44,330 EV 7,782
Total	101,401	107,100	130	101,301	101,787
Insufficient electrical and/or steam generating capacity	E	E	S + E	E	E
Remark:	AM = refer to morning PM = " " afternoons EV = " " evenings	noon load period (from am to 12 noon) " " (12 noon to 7 pm) " " (after 7 pm)			

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Jan 28	Jan 29	Jan 30	Jan 31
Area affected	SPC WDFC Chapel	SPC WDFC Chapel	SPC WDFC Chapel	SPC WDFC
Supply from Substation	16 sub-stations	17 sub-stations	18 sub-stations	16 sub-stations
Feeder	24 feeders	25 feeders	30 feeders	16 feeders
Customer	26 customers & LV net-works	31 customers & LV net-works	32 customers & LV net-works	19 customers & LV net-works
Duration of supply interruption	6 mins to 3 hrs 37 mins	7 mins to 3 hrs 17 mins	15 mins to 3 hrs 34 mins	9 mins to 3 hrs 18 mins
Estimated	Company's area Chapel	AM 64,800 PM 16,660 EV 14,840	AM 111,300 PM 26,076 EV 22,231	AM 93,530 PM 15,170 EV 7,950
KVA-HRS Lost	French			
Total	26,480	47,311	116,174	36,240
Insufficient electrical and/or steam generating capacity	S	S	S + E	S + E
Remarks	AM - refers to morning peak load period (3 am to 12 noon) PM - " " afternoon " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)			

SHAOHSIAI POWER COMPANY

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(b) Other Causes

Date	Jan 8	Jan 10	Jan 13	Jan 14
Area affected	SPC	SPC	WDPC	SPC
Supply from Substation	TungYih	Chunichi Heavy Industry	Edinburgh	Chunichi Heavy Industry
Feeder	Tung Yih	- " -	M2 & M3 O/H Lines	- " -
Customer	Tung, Yin	- " -	35 customers & networks	- " -
Cause of failure	Not determined	Fault on consumer's equipment	A cat entered Aux B/B Cell M3 feeder	Fault on consumer's equipment
Fault cleared by	Transformer OCB	D.C. Fuses	M2 & M3 OCBs opened by operator	D.C. Fuses
Damage to equipment	None	None	None	None
Duration of supply interruption	30 mins	22 mins	2 mins	29 mins
Load affected KVA	Company's area	20	200	6300
	Chapel			
	French			
	Total	20	200	6300
Remarks				

SHANGHAI POWER COMPANY

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(b) Other Causes (continued)

Date	Jan 18	Jan 18	
Area affected	Chapei	Chapei	
Supply from Substation	Connought	Connawught	
Feeder	E 11	E 11	
Customer	Chapei Chang An	Chapei Chang An	
Cause of failure	Overload	Overload	
Fault cleared by	E 11 OCB	E 11 OCB	
Damage to equipment	None	None	
Duration of supply interruption	4 mins	9 mins	
Load affected KVA	Company's area		
	Chapei	4,000	3,200
	French		
	Total	4,000	3,200
Remarks			

SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including Item 1)
(a) Caused by Defective Equipment

Equipment	Number of Failures	
	This Month	Last Month
Overhead lines: LV	-	1
HV	3	1
Underground lines: Cables	-	1
Joint.	-	1
Fittings	4	1
Transformers and voltage regulators	-	1
Switchgear	-	2
Power fuses	-	1
Protective equipment	-	-
Traction equipment	-	-
Motoring equipment	-	-
Current and potential transformers	-	-
Street lighting: Series	-	-
Parallel	7	10
Other Company's equipment	-	2
Total (a)	11	20

(b) Other Causes

Cause of Failure	Number of Failures	
	This Month	Last Month
Foreign agencies: Overhead lines	5	3
HV or LV lines	1	-
Underground lines	-	-
Train trolleybus: Overhead lines	-	-
Street lighting	5	2
Theft of equipment	-	-
Typhoons and storms	-	-
Lightning	-	-
Flood	-	-
Fire	1	-
Vermin and birds	1	-
Overload	-	4
Customers' equipment failures:		
Company's area	3	3
Ex-franchise area	3	-
Company's staff: Misoperation	-	-
Fouled by workers	-	1
Generating station trouble	19	22
Undetermined	1	2
Total (b)	36	42
Total (a + b)	49	62

~~SHANTUNG POWER COMPANY~~

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(3) Trouble Calls attended to by System Trouble Section

Company's Installation	Number of Calls					
	This Month			Last Month		
	SPC	WDPC	TOTAL	SPC	WDPC	TOTAL
23-kv overhead and underground lines	-	-	-	-	-	-
6,600-volt overhead and underground lines	5	2	7	12	2	14
380-volt overhead and underground lines	11	8	19	4	9	13
Street lighting lines and equipment	45	3	54	62	10	72
Traffic signals	11d	7	125	150	5	155
House service connections and wires	69	24	93	121	35	156
Substation equipment	-	1	1	1	-	1
D.C. Traction equipment and lift	1	-	1	1	-	1
Fire calls	61	15	76	42	4	46
False alarms	-	-	-	3	-	3
Miscellaneous	7	1	8	10	3	13
<u>Customers' Premises</u>						
Lighting	220	741	962	926	249	1177
Power	110	63	173	122	56	178
Heating	35	13	42	44	16	60
Total Trouble Calls attended to	1146	345	1571	1560	389	1689
Average per day	38.8	11.4	52.7	48.5	12.5	60.9

(B) NON-EMERGENCY POWER FAULTS(1) Connected and/or Disconnected from Service

SPC

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
NRC Central Chemical Work	225		New installation
Kotobuki Lumber OT		125	OT dismantled
Weinan	125		Temporary for relief of load
Ferry-Wuting PF	325		New installation
Jinshan-Yungtzeepoo PT	625		New installation
Tonquin	1000	1000	Found voltage unbalanced (B phase) on Tap No. 5

SHANGHAI POWER COMPANY

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WDPC

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
East Tae An Pang PT	225)
East Tae An Pang "A" PT		62 ¹) Load increase
East Tae An Pang "B" PT		50)
Jenfield-Kinneer PT	325	225	Load increase

U N I T S

	SPC	WDPC
(2) Taps changed for Network Voltage Regulation	5	5
(3) Switched on or off for loading or other operational purposes	4	-
(4) Under observation due to overload or overheating		

SPC

Location	Capa- city KVA	Type	Max Load % hour dura- tion	Max oil top temp	Ambi- ent temp	Temp rise	Remarks
Robison-Gordon PT	325	Outdoor	103 1 ¹	65	9 ¹	55 ¹	Load transfer under study
Yates PT	225	"	103 1 ¹	36	4 ¹	22 ¹	
Tea Tobacco Co.	225	"	126 1 ¹	62	14 ¹	47 ¹	Transformer to be enlarged
Bubbling Wall	200	Indoor	108 1 ¹	38	10 ¹	27 ¹	
" " VR	260	"	130 1 ¹	34	10 ¹	23 ¹	
Da An Rubber Fac. OT	225	Outdoor	132 1 ¹	36	10	26	In hand of E.D.
Singapore-Kinnochow PT	225	"	170 1 ¹	48 ¹	10 ¹	38	90 ¹ transferred to Kinnochow LV network on Jan 14. Letter to ED.
Tatung PT	225	"	109 1 ¹	34	4 ¹	29 ¹	
Tsepoo-Kansuh PT	225	"	111 1 ¹	45	8 ¹	36 ¹	
Shanghai China Merchant Stock Exchange	125	"	116 1 ¹	28 ¹	7	21 ¹	
Elgin PT	225	"	100 1 ¹	16	3	13	
Custom House	325	Indoor	110 1 ¹	44 ¹	9 ¹	35 ¹	
Tatung PT	225	Outdoor	109 1 ¹	36	9	29 ¹	
Tsepoo-Kansuh PT	225	"	111 1 ¹	45	10	36 ¹	
Yangtzeppoo Dalny PT	125	"	113 1 ¹	43 ¹	15 ¹	32	
Chaufoong CM	325	Indoor	105 1 ¹	55	15	40	
Widow's Monument PT	225	Outdoor	111 1 ¹	35	6 ¹	28 ¹	
Jenfield-Yu Yuen PT	125	"	121 1 ¹	42 ¹	15	29 ¹	
Kung Dah No.1	90	Indoor	132 1 ¹	44	0	44	Under study by ED.
Pingleng-Tinghai PT	125	Outdoor	150 1 ¹	34	-3	37	Under study by ED.
H'Well-Gordon PT	225	"	103 1 ¹	31	-7	30 ¹	
Wuting PT	225	"	111 1 ¹	10 ¹	0	18 ¹	
Sung Sing No.6	940	Indoor	115 ¹ 3 ¹	52	12	40	
- " -	940	"	100 1 ¹	50 ¹	12	39 ¹	
- " -	940	"	100 1 ¹	51	12	39	

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WATERPOWER COMPANY

WDPC

Location	Capa-city KVA	Type	Max Load % hours duration	Max oil top temp	Ambi- ent temp	Temp rise	Remarks
Kinchow-Penang Pp	325	Outdoor	106	29	8	21	
Great Western Riding School PT	325	"	102	41	12	29	
Zao Kn Yih PT	225	"	106	30	9	21	
Chen Kn Jao "A" PT	20	"	106	11	4	7	
Columbin-St.Western PT	125	"	126	42	8	34	
Loe Wing Iron Works GT	225	"	117	37	12	25	
Dah Chung Hwa Flour Mill	225	Indoor	132	36	6	30	160kw transferred to Lung Yih LV network
Zao Kn Yih PT	225	Outdoor	112	39	17	23	
West Tso An Pang PT	325	"	100	64	18	47	
St. John's PT	225	"	100	44	8	36	
Great Western-Lincoln Ave PT	35	"	104	4	-1	5	
Chung Woo PW	325	Indoor	118	63	12	51	
Tso Chong Main Glue Factory PT	625	Outdoor	128	37	10	27	Transformer to be enlarged

(C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
1	Current transformer compound filled 200/5A for split conductor protec- tion, make ETP	6,600	Heat run	To investigate the current rating
12	Bushing insulators, indoor type, make CHP	6,600	Overvoltage and spark over	Acceptance
10	Pin insulators and rubber insulated packing, make CHP	6,600	Overvoltage and spark over for pin insula- tors breakdown for rubber insulated packing	Acceptance
6	Bushing insulator, outdoor type, make CHP	25,000	Overvoltage and spark over	Acceptance
1	Transformer, 225kVA, 3 ϕ , make Ferranti	6,300 370	Continuity, insulation resistance, ratio and phasing	After routine overhaul

EMERSON POWER COMPANY

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Units	Equipment	Voltage	Mature of test	Reason for test
1	Induction voltage regulator, 183 kVA, make IGE	6,600	Continuity, insulation resistance, pressure, phasing and tolerance	After overhaul
2	Thermalarm, make Eastern Specialty Co., USA	-	Tripping temperature at 150°F setting	Acceptance
25	Cone insulator make Cheo Kien	6,600	Overvoltage and flash over	Acceptance
1	Syn. motor-generator No.1 at Yenron S. S.	380	Voltage drop on shunt field coils	New shunt field coils of Westinghouse manufacture installed
1	Syn. motor-generator No.2 at Yenron S. S.	380	Voltage drop on shunt field coils	To compare voltage drop on shunt coils
1	Transformer, 225 kVA 3 Ø, make Ferranti	6,600	Continuity, insulation resistance, ratio and phasing	After overhaul
1	Duct splice make SFC	-	Bent rim	Investigation
1	Syn. motor-generator No.1 at Yenrong Substation	380	Voltage drop on shunt field coils	To check voltage drop after receiving trouble report
1	Generating plant 2500 kVA in CT II Mill No.6, consumer's property	6,600	Overload, overvoltage, undervoltage and differential protection	Prior to interconnection
8	Pyramal capacitor, make IGE, consumer's property	-	Insulation resistance, capacity and power factor	Acceptance
20	Terminal bushing, indoor type	380	Overvoltage and flash-over	Acceptance
1	LV terminal bushing, indoor type	380	Overvoltage and flash-over	Acceptance
1	LV terminal bushing, indoor and outdoor type	380	Overvoltage and flash-over	Acceptance

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CHINATRON POWER COMPANY

Units	Equipment	Voltage	Nature of test	Reason for test
1	Generating plant 2500 kVA in CT II Mill No.6-7, consumer's prop- erty	6,300	Voltage ratio of trans- former bank PT's po- larity for synchro- scope, phase rotation	Experimental pa- rallel operation
1	Syn. motor-generator No.1 at Fearnan S/S	660	Copper test of shunt field coils	Prior to com- missioning
-	Consumer's installa- tion at Chunichi Heavy Industry	6,600	Overvoltage	After faulty equip- ment repairs
1	Stator coils of MG1 at Yangchow Sub- station	6,600	Overvoltage	After wedges have been renewed
5	Terminal bushing indoor type make CIP	6,600	Overvoltage and flash- over	Acceptance
-	Consumer's installa- tion at China Textile machinery	-	Overvoltage, ratio, insulation and over- load test	After repairs
1	Syn. MG No.1 at Yangchow Substation	660	Insulation resistance, continuity	Prior to com- missioning
2	Transformers banks at CT II Mill 6 consumer's property	-	Victor relationship, water and seal inspi- pline	Investigation
16	Bushing insulator, outdoor type, make Lee Chi Industrial Co.	380	Overvoltage and flash- over	Acceptance
1	O/H line at Chunichi Heavy Industry	6,600	Overvoltage	After bushing insulators were renewed
1	Potential transfor- mer, make China Scientific Instru- ment Co.	13,200 110	Insulation resistance and pressure	Consumer's Engi- neer's Department request
10	Cone insulators No. 1 & 2, make Lee Chee Industrial Co.	No.1- 6,600 No.2- 380	Overvoltage and flash- over	Acceptance

GENERAL POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
-	Insi-x No.11-6, make Insl-x Co.	-	Insulation resistance, breakdown voltage, heat run	Investigation
1	Generating plant 2500 kVA in CT II Mill Nolys consumer's pro- perty	6,300	Overload, overvoltage, undervoltage and differential pro- tection	Prior to inter- connection
2	Fluorescent lamp starters make Solar & GE	-	Striking and operating voltage	Comparison
1	Transformer, 50kVA, 3 Ø, make Westing- house	6,200 380	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul
1	Transformer, 635 kVA, 3 Ø, make AEG	6,165 380	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul
1	Transformer, 10kVA, 1 Ø, make IGE	6,600 410	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul

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II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

(1) Overhauled (Core lifted, windings and connections examined, IR tested and oil changed)

SPC

Location	Capacity in KVA	Workshop	Reason for overhaul
Tonquin	625	Fearon S/S	Over 10 years in service
Yu Yu Ching PT	225	"	"
Wayside-Lay PT	225	Riverside	"
Meichow-Chuoyang PT	225	"	"

WDPC

Location	Capacity in KVA	Workshop	Reason for overhaul
Enat Tse An Pang "H" PT	10	Fearon S/S	Transformer overloaded
Blume's PT	10	Riverside	Transformer failed in service
MacLeod (H.I.L.Y) PT	10	Riverside	-
Huski Club PT	10	Fearon S/S	Over 10 years in service

UNITS

	SPC	WDPC
(1) Inspected on site	45	-
(2) Oil-Dielectric tested	22	11

(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBS tested			
	SPC Company's property	SPC Customer's property	WDPC Company's property	WDPC Customer's property
Routine and special maintenance	27	14	15	22
Oil circuit breakers tripped	2	2	-	3
New installation or operation resumed	-	10	-	4
Total	29	26	15	29

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SHARON POWER COMPANY

U N I T S		
	SPC	WDPC
(2) Oil-Dielectric strength tested	12	12
(3) Oil changed	18	2

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	U. S. gallons							
Mearon Oil Depot	1,328	1,781	3,901 ²	875	640	626	1,340	740
On Site- SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
Total	1,328	1,781	3,901 ²	875	640	626	1,340	740

Samples for oil tested for breakdown 134

(D) PROTECTION, RELAYING AND TIMING DEVICES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	WDPC
Overload and Earth Leakage	29	15
Feeder or Transformer Balance	12	5
Total	41	20

(2) Relays

Type	Number of Relay Elements			
	SPC	WDPC	Circuit tested	Changed
Inverse Time	17	-	-	1
Instantaneous	5	2	2	-
Total	22	2	2	1

~~SHANTUNG POWER COMPANY~~

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(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type		
	110 V in Primary Substations		Telephone Exchange	30-v in Secondary Substations	
	SPC	MDFC	SPC	MDFC	
Inspected, cleaned and topped up	19	11	69	19	
Equalizing charge conducted	3	-	-	-	
Charged and discharged	2	-	2	-	
Electrolyte changed	-	-	1	1	

(4) Auto-Telephone Equipment and Lines

Instruments installed	5
" disconnected	1
" changed	2
" moved	6
" overhauled	-
" faults repaired	24
Line faults located and repaired	1
Switches overhauled	1
Exchange equipment faults repaired	8
Miscellaneous equipment overhauled	-

(E) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Com-	Equipment	Work done	% completed
Fearon	SPC	Rotary plant	Overhaul of three 3,600 KVA synchronous motor generators and starting gears	60
Primary Substation			Changing of oil in the machines	90
Head Office			Overhaul auto. telephone motor generator	100
Fearon			Changing of two shunt field coil on MG 1 DC generator	100
Yangchow			Overhaul of two 3,600 kVA synchronous motor generator and starting gear	100
Tonquin			Inspection of two synchronous condenser starting gears and separate exciters	100

~~SHANNON POWER COMPANY~~

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Regular and Special Maintenance (continued)

Substation	Com- pany	Equipment	Work done	% completed
Robison	WRPC	Switchgear	Overhaul and overload test 23 kV oil circuit breakers	60
Fearon and Tonquin	SPC	Power trans- former	Inspection of main trans- former and connecting up space transformer for one week	100
Robison	WDPC		Inspection of main and earthing transformers	100
Fearon	SPC	Instrument transformer	Overhaul and clean-down of filament transformer for DC Kenotron set	100
Robison	WDPC		Inspection and clean-down of current transformers	60
Oil Depot		Oil plant	Overhaul of oil depot plant and oil pump at Fearon Substation yard	100
Primary Substation	SPC & WDPC	Various sub- station equipment	Checking of all portable earth wire and clamp Testing of all rubber gloves Checking of all tools	10 80 100
Primary Substation	SPC & WDPC	Batteries	Routine maintenance	To programme
Primary Substation	SPC	Safety devic	Inspection of safety de- vices and checking on artificial respiration practice	To programme

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~~HONGKONG POWER COMPANY~~(F) SECONDARY SUBSTATIONSRegular and Special Maintenance

Location	Com- pany	Work done	% completed
Tsaofoo	SPC		25
Bubbling	"		85
Rango	"		75
Park (old)	"	<u>Biannual Regular Maintenance</u>	100
Wing On 3	"		100
Yuton Coal Briquette	"		100
Shong Te Weaving	"		100
Suy Woo	"		100
Wong Fai Nails	"	Overhaul of switchgear, testing of automatic protective equip- ment, inspection of transfor- mers and regulators, inspection of all electrical equipment and cleaning.	100
Dah Wu Brass	"		100
Central Printing Co.2	"		100
Mei Kwang D. W	"		100
Tsung Tacon	"		100
Nee Sung R	"		100
Shanhaikwan	"		20
KWK 3 & 4	"		50
Chunichi Heavy Industry	"		100
Kanting	"		50
Edinburgh	EDPC		100
Tuck Fung CM	"		100
Yung Foong CM	"		100
Japan-Chinn	"		100
All districts		Inspection of fire extinguishers	40
All districts		Inspection of unoccupied lamps and vacant rooms	20
All districts		Inspection of all wooden poles in Depot yards	60
Eastern District		Overhaul of four power transformers at Yermon Substation	100
Western District		Completely clean down and whitewash Robinson, Hung Yih, Brennan and Edin- burgh Substations	20
All districts		Inspection of pole transformer	To programme
All districts		Inspection of safety devices and check on artificial respiration practice	To programme

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(G) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

System Voltage	Locations where maintenance of overhead lines has been carried out to programme
6.6 kV	Line to Kinnear-Edinburgh PT M2, M3 and C3 overhead line

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	111		2
Brackets	682		-
Line switches	15		-
Lightning arrestors	6		-
Insulators	1248		37
Fuses	76		-
Series transformers	-		-
Lump fittings	-		-
Lump brackets	-		-
Connections	-		-

(3) Poles and Pole Bases - Routine and Special Maintenance

	SPC	WDPG
Poles inspected	167	419
Wood poles painted	2	-
Iron poles painted	-	-
Concrete poles required	-	-
Decayed wood poles renewed: Main	2	3
Suspension	3	-
Stay	4	-
Concrete bases inspected	139	409
Concrete bases required	-	-
Concrete bases renewed	11	5
Cast iron sleeves renewed	6	-
Cast iron sleeves replaced by concrete bases	-	-
Obsolete concrete sleeves replaced by concrete bases	-	-

(4) Street Lamps faulty and renewed

Municipal street lighting	1736	253
Private street lighting	845	142
Total	2581	395

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	1
Central District	-	-	3	52
Western District	-	-	2	4

SWANSON'S POWER COMPANY

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(H) UNDERGROUND LINES

	<u>% completed</u>	<u>SPC</u>	<u>MDFC</u>
(1) <u>Inspection and Maintenance</u>			
Idle cable risers	100	100	
Road condition along cables in Eastern District	100	-	
Central District duct line and manholes	100	-	
Underground cables on bridge crossings	100	-	

	U N I T S	
	SPC	#DPC
Cable pothands and joints: 23 kV	-	2
6.6 kV	73	-
380 V	-	-
Feeder pillars	2	-

<u>Underground cables slung and protected:</u>	<u>Location</u>
1. Canton Rd-The Bund	SPEC
2. S Soochow Rd-Chapoo Rd Bridge	NDPC
3. Foochow Rd-Peking Rd, along the Bund	
4. Chapoo Rd, corner Waicing Rd	

(2) 23 kV Underground Cable Failure Located and Repaired Hill
(3) 6.6 kV Under-ground Cable Failure Located and Repaired 2

SP47

Feeder name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
B-25 Fuxien- Shensi	Service	Joint 5 (Woozung Road corner of Fuh Teh Road)	3	Ground Subsidence	Length of 23 ft replaced by new cable and two new joints
B-24 Fuxien- Peking	Incipient	Joint 5 (Woozung Road corner of Fuh Teh road)	R,W,B	Ground Subsidence	Renamed in same position

WDR

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(4) 380 V Underground Cable Failure Located and Repaired Hil
(5) Pilot, PL and Telephone Cable Failure Located and Repaired 1

SHANGHAI POWER COMPANY

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SPC

Feeder name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
4 pair Telephone Hamilton House- Shanghai Club	Service	Cable (v3 feet from Shanghai Club Sub- station in alley- way)	All pairs	Ground Subsidence	Length of 60 ft and one joint replaced by new cable and two new joints

WDPC Nil

(6) 23 KV Underground Cable Preventive Repairs Nil
 (7) 6.6 KV Underground Cable Preventive Repairs Nil
 (8) 390 V Underground Cable Preventive Repairs Nil

(I) BUILDINGS

% completed

SPC	Location	Work done	Last Month	This Month
	1. Fuxon Underground Workshop	Build cupboard for workers' mess room	30	65
	2. Fuxon Construction Substation Workshops	Alterations to buildings	40	50
	3. Yangtzeow Depot	Repair roof	70	70
	4. DD Office	Alterations to monthly staff laundry	-	60
	5. Fuxon Substation	Repairing brick column of Transformer Bank No. 3 chamber	-	100

WDPC Nil

III CONNECTIONS(A) SERVICES

	SPC	WDPC
(1) <u>House Services</u>		
Connections	345	211
Disconnects	87	23
Net increase	258	188
(2) <u>Municipal Street Lighting</u>		
Connections	16	-
Disconnects	-	-
Net increase	16	-

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(3) Private Lighting

	SPC	WDPC
Connections	44	3
Disconnections	62	3
Net increase	-18	-

(3) OVERHEAD LINES(1) Erection

	Area	Location	Route length yards	Number of poles
6.6 KV 3-wire	SPC	MRC Central Chemical Works	27	1
"	WDPC	48 Kong Ka Jao	90	-
"	"	139 & 141 Chunshan Road	310	-
"	"	Five Star St. Western Road	29	-
"	"	Lincoln Av. & Warren Road	23	-
380 V 4-wire	SPC	1504 Yangtzeapoo Road	87	-
"	"	Daihi Substation Area	277	-
"	"	Sing Mun Brass Mill	54	-

(2) Salvage

	SPC	WDPC
6.6 KV 3-wire	SPC	Kotobuki Lumber Co.
"	WDPC	Five Star St. Western Road
"	"	East Tse An Pung PT
380 V 4-wire	"	Rubicon Road N of Hungjao Rd

(3) Poles

	SPC	WDPC
Erected	2	33
Removed	8	28
Moved at the request and expense of the Municipality	2	-

(c) UNDERGROUND LINES(1) Installation

Cable -	SPC	53 yds, .057 sq in, 3-core, 6.6 KV cable for supply to MRC Central Chemical Works, Yangtzeapoo Road
	WDPC	11 yds, .057 sq in, 3-core, 6.6 KV cable for supply to East Tse An Pung PT, off Edinburgh Road
Joints and potheads -	SPC	One 6.6 KV pole pothead and one 6.6 KV transformer pothead for supply to MRC Central Chemical Works, Yangtzeapoo Road
	WDPC	One 6.6 KV pole pothead and one 6.6 KV transformer pothead for supply to East Tse An Pung PT, off Edinburgh Road

(2) Salvage

Cable -	SPC	17 yds, .075 sq in, 3-core, 6.6 KV cable salvaged from Kotobuki Lumber, Yangtzeapoo Road
	WDPC	Hill

SHANGHAI POWER COMPANY

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Joint and SPC One 6.6 kV pole pothead and one 6.6 kV transformer
potheads salvaged from Kotobuki Lumber, Yangtzeepoo

Road
WDPC N11(3) Deviation N11(D) SUBSTATIONS

	<u>Substation</u>	<u>Work done</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
SPC	1. Sing Yue No.1, West Soochow Road	Installation of 6.6 kV bus couple gang operated links	45	70
	2. Standard Shirts Fac- tory, Tongshan Road	Installation of 6.6 kV sup- ply	30	90
	3. Dah Kong Mill, Tengyueh Road	Change A1 & A2 OCBs from 300A to 600A rating	25	50
	4. Chang Bank, Szechuan Road	Removal of 1-225 kVA trans- former	-	50
	5. Tonquin	Replacement of 1000 kVA Local Transformer due to faulty tap changer	-	75
	6. Wha Fong Worsted, Linching Road	Installation of LV network feeder	-	10
WDPC	1. Union Syndicate, off Connaught Road	Conversion to 6.6 kV supply	30	50
	2. Kwan Sing P & D, Kaochien Road	Conversion to 6.6 kV supply	45	75
	3. Chung Woo FM, Tunsin Road	Conversion to 6.6 kV supply	-	30

(E) BULL. SUPPLY METERING

	<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
	Metering equipment installed	5	2	7
"	" removed	1	-	1
"	" changed	1	2	3

SHANGHAI POWER COMPANY

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(P) VARIOUS WORK

	<u>Nature of Work</u>	<u>Location</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
SPC	1. Redrumming of cables from rotten to good reels and repair to cable drums	Fearon Depot	75	100
	2. Prepare material for Underground Emergency Store	Fearon Underground Workshop	-	-
	3. Making 23 kV "H" type .4 sq in duct joint sample	Fearon Underground Workshop	50	80
	4. Wiring for lighting and power lines in Engineering Model Workshop	Ferry Substation	90	100
	5. Installation of joints and potheads for smoke signal device	Riverside Generating Station	-	100
	6. Reconnect PL for Bureau of Public Works	Pontoon 11	-	100
	7. Laying new drain pipe and cleaning the pond	17 Lucerne Road	-	100
	8. Repairing FB-1 PL cable pothead	Garden Bridge, The Bund	-	100
	9. Manufacture of reinforcing clamps for 4'-0" copper sleeve	Fearon Substation Workshop	-	75
	10. Modification to MG 1 starting panel	Yangchow Substation	-	100
	11. Manufacture of PL regulator plug for Fearon Substation	Fearon Substation Workshop	-	100
	12. Manufacture of spare motor vehicle engine stand	Fearon Garage Workshop	-	100
	13. Repair main driving pulley on machine shaft	Fearon Substation Workshop	-	100
WDPG	All			

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Work done</u>	<u>% completed</u>	
			<u>Month</u>	<u>This Month</u>
SPC	1. Shanghai Waterworks, Kinnoch Road	Re-route ex-compressor cable, and supply labour and material for Consumer's 40 KVA load-dense P ⁿ	100	
WDPG	All			

SHANGHAI POWER COMPANY

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V STAFF(A) CHARGESEngineering and Office StaffSPC

Tang P. Y. (Miss)

Stenographer

Engaged

WEPIC

None

Monthly Rate StaffSPC

Cheng Yun Sheng

Typist (Temporary)

Service terminated

WEPIC

None

Daily Rate StaffSPC

RX 2

Labourer

Engaged

EOX 22

"

"

COX 5

"

"

OSX 3

"

"

GUQ 16

Improver

"

EOL 10

Lineman

Deceased

COX 5

Labourer

Retired

LWX 4

"

Deceased

GUZX 6

"

Service terminated

CSFZ 5

(Temporary)

"

GSWZ 6

Fitter (")

"

CSFZ 7

" (")

"

WEPIC

None

(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Jan 14	WOL 5	Kiaochow Road South of Connaught Road, fronting House No. 419 Kiaochow Road	WOL 5 fell to the ground and suffered injuries when our vehicle was hit near the tail-end by an outsider truck backing out from an alleyway	No	1 week
Jan 15	WOL 16	In front of House 141, Chun Shan Road	A ladder was suddenly blown away from a pole by high wind and fell on the head of WOL 16	No	2 days

VI MISCELLANEOUS(A) Theft of Materials

Nil

(In SPC and WEPIC Areas)

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VII TRANSPORT

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES(1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	55	9	2	5	15	3	4
In Storage	-	** 1	-	-	-	-	4

* Oil tanker and 20-ton lorries

** Under conversion to Station Wagon

(2) Operating Data on Motor Vehicles

Type	No. in service	GASOLINE												
		Issue (gallons)		Usage (gallons)		Mileage run		Average mpg		Issue (gallons)		Usage (gallons)		
		Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec	
Passenger cars	51	15	2,322	6,499	6,322	6,489	75,660	75,345	12.0	11.7	51	15	2,322	6,499
Station wagons	2	2	161	171	166	171	1,711	1,974	10.3	11.5	2	2	161	171
Pick-ups	9	10	863	1,029	960	1,029	11,103	12,723	12.8	13.4	9	10	863	1,029
Trucks (1½-ton)	2	2	247	233	247	233	2,143	2,222	8.7	9.5	2	2	247	233
Trucks (3½-ton)	2	2	1,193	1,296	1,199	1,296	1,478	6,896	7.1	6.8	2	2	1,193	1,296
Lorries (6-ton)	2	2	282	299	282	299	1,227	1,281	4.3	4.2	2	2	282	299
Lorries (20-ton)	2	2	36	109	31	109	41	149	1.3	1.4	2	2	36	109
Oil tanker truck	1	1	-	3	-	2	-	2	-	1.0	1	1	-	3
Meter vans	2	2	164	141	164	141	1,296	1,082	7.8	7.7	2	2	164	141
Trouble Section														
Van	1	1	159	221	155	221	990	1,137	6.2	5.1	1	1	159	221
Cooker vans	2	2	405	365	405	365	3,429	3,301	8.5	9.0	2	2	405	365
Bus	2	2	626	567	626	567	4,065	3,719	6.0	6.5	2	2	626	567
Trailers	8	9	-	-	-	-	-	-	-	-	8	9	-	-
Total	97	98	10,474	10,233	10,469	10,922	110,133	112,391	10.5	10.3	97	98	10,474	10,233

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~~ENTREPRENEUR POWER COMPANY~~

(3) Maintenance Works on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
	Jan	Dec	Jun	Dec	Jan	Dec	Accident	Breakdown	Jan	Dec
Passenger cars	1	1	3	3	106	95	1	10	10	11
Station wagons	-	-	-	-	5	4	-	-	-	-
Pick-ups	-	-	-	-	28	26	1	1	2	3
Trucks (1½-ton)	-	-	-	1	6	10	-	-	1	3
Trucks (2½-ton)	-	-	-	1	16	24	-	3	1	6
Lorries (5-ton)	-	-	-	-	5	5	-	-	-	1
Lorries (20-ton)	-	-	-	-	-	1	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor van	-	-	-	-	12	7	-	-	-	-
Trouble Section van	-	-	-	-	2	1	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	-	1	6	4	1	2	1	2
Trailers	-	-	-	-	-	1	-	-	-	-
Total	1	1	3	6	188	178	3	16	15	26

(4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		Pearson stock at the end of this month: 1,771 US gallons of SAE 30
	Jan	Dec	
Cars	144	142	
Trucks	186	179	
Other purposes	15	18	
Total	339	339	

(5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	9	50.0
Engine	-	-
Chassis	1	5.5
Fuel system	5	27.8
Tires and tubes	3	16.7
Total	18	100.0

Frequency: 6,118 miles per breakdown.

SHANGHAI POWER COMPANY

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(B) MAJOR HAULAGE JOBS
(1) TRANSFORMERS, MOTORS, AND POLES

Unit#	Equipment		Moved		Size of truck	Man-days	
	Capacity KVA/H	Weight lbs	Description	From	To		
1	625	16,800	Transformer	Tonquin Substation	Ferry Substation	20, 6	22
8		4,480	O.P. Pole	Woodcraft Works	Haiphong Stores	3 _L	8
2		19,096	Concrete Structure	Riverside Stores	Haiphong Stores	6	14
1	225	5,417	Transformer	Fearon Substation	MRC Chemical CT	20	10
10		9,000	Concrete base	Riverside Stores	Haiphong Stores	6	8
10		9,000	"	"	"	6	8
3		7,200	"	"	"	6	8
1	625	13,000	Transformer	Fearon Stores	Fearon Substation	20	25
1	125	15,000	"	Fearon Substation	Ferry Substation	20	25
1		6,500	Concrete base	Riverside Stores	Haiphong Stores	6	8
1	625	3,530	Transformer	Fearon Substation	East Tso An Pang PT	6	8
1	625	2,000	"	East Tso An Pang PT	Fearon Substation	6	10
1	625	2,000	"	"	Hungjiao Road	6	10
16		20,800	Concrete base	Riverside Stores	Hungjiao Road	6, 6	16
10		10,800	"	"	Hungjiao Road	6, 6	16
1	125	3,150	Transformer	Kotobuki Lumber CT	Fearon Stores	6	7
1	80	2,240	Motor	Fearon Stores	Ta Yu Yue Oil Mill	6	7
1	60	2,240	"	Ta Yu Yue Oil Mill	Consumers' Eng. Dept. Workshop	6	6
2	225	7,940	Transformer	Riverside Workshop	Fearon Stores	6	10
1	125	4,310	"	Fearon Stores	Weinan Substation	3 _L	7
5		10,400	Concrete base	Riverside Workshop	Hungjiao Road	6	8
1	200	4,480	Motor	Shanghai Waterworks Yangtzeapo W/shop	Shanghai Waterworks Sincza Pump Station	6	20
1	225	5,350	Transformer	Riverside Workshop	Fearon Stores	6	10
2		4,000	O.P. Pole	Woodcraft Works	Riverside Stores	7	16
1	325	4,465	Transformer	Fearon Stores	Jessfield-Kinnear PT	20	8
1	225	5,180	"	Jessfield-Kinnear PT	Riverside Workshop	20	8
1	225	5,350	"	Riverside Workshop	Nanyang Rubber OT	20	20
1	1,000	16,800	"	Tonquin Substation	Fearon Stores	20	40
1	625	16,800	"	Fearon Substation	Delhi Substation	20	30
4		8,000	O.P. Pole	Woodcraft Works	Riverside Stores	6	16
	TOTAL:	254,168					348

~~MANHATTAN POWER COMPANY~~

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(2) SUMMARY

Item	Type of Freight	Weight lbs	Number of Trips	Man- days	Mileage Run
1	Transformers, Motors, and Poles	254,168	51	318	454
2	Miscellaneous Material	679,000	68	284	1,761
3	Coal Briquettes	400,000	51	Contr- uctor	1,536
Total		1,333,168	190	632	3,751

$$\begin{aligned} \text{Total in Ton Miles: } & \frac{\text{Total Weight lbs}}{2000 \text{ lbs} \times \text{Total Trips}} \times \frac{\text{Total Miles}}{2} \\ & = \frac{1,333,168}{2000 \times 190} \times \frac{3,751}{2} = 6,600 \text{ Ton Miles} \end{aligned}$$

SHANGHAI POWER COMPANY

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(c) BICYCLES(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issue for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	20	12	-
	Tricycles	7	7	-	-
Meter Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec
Company's bicycles	243	1	2	68	74	20	18	-	-
Employee's bicycles	25	-	-	7	5	5	4	-	-
Tricycles	10	-	-	3	2	-	-	-	-
Pedicabs	-*	-	-	-	3	-	-	-	-
Trailers	2	-	-	-	-	-	-	-	-
Total	240	1	2	78	84	25	22	-	-

* Three pedicabs sold on January 7th.

(D) HANDCARTS

Type	No. in Service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	1	2	-	-	-
Standard 1-ton	3	13	-	-	-
Loung Service	2	1	-	-	-
Balancing	3	1	-	-	-
Total	10	19	-	-	-

~~SIMMONS POWER COMPANY~~

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(B) TRANSPORT WORKSHOP

Shop	WORK DONE		For other divisions - 17.2%	
	For Transport Division - 32.3%	Manhours	% of total	
Vulcanizing	Repaired for - Motor vehicles: 11 tires; 131 tubes Bicycle: 14 tires; 18 tubes	228	19.2	
Tailor	Repaired to 16 tent covers 4 tent covers 56 upholstery 1 upholstery 37 uniforms	18	1.4	
Paint	Repainted: 1 motor car; 1 bicycle Touched up: 140 motor car jobs; 80 bicycle jobs	316	26.8	
Welding	Repaired by welding - 51 motor vehicle bodies 21 engine parts 17 chassis parts	301	16.9	
Batter	Repaired: 6 batteries Repaired: 11 "	-	-	
Blacksmith	Forged: 4 iron parts Repaired: 161 damaged parts	26	1.7	
Weldsmith	Repaired - 13 vehicle radiators 25 bumpers 32 bodies 35 doors 23 windows 5 various small parts	3	0.2	

SHANGHAI POWER COMPANY

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Shop	Transport Division	WEEK DATE	
		Other divisions Manhours	% of total
Electrical	Repaired or overhauled - 15 starters 13 dynamos 61 horns	-	-
Carpenter	Repairs to 31 vehicle bodies	Repairs to 7 chairs 2 revolving chairs 3 desks 8 extension ladders Minor repairs: 375	31.5
Machine	Repairs to 78 engine parts 238 other parts Manufacture of 61 engine parts 257 other parts	27	2.3
Lubrication Centre	Motor vehicles: Oil changed: 66 General inspection: 66 General lubrication: 66	-	-

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(F) ACCIDENTS

(1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-siders
Jan 3	Pass car	17520	Yanctazepoo	Knocked down pedestrian	-	x	-	No	No	Yes
Jan 3	1½-ton van	30131	Fearon Road	Knocked down pedestrian	-	-	x	No	No	Yes
Jan 13	Pass car	16617	Burkill Hill Rd	Collided with car	-	-	x	Yes	No	No
Jan 13	1½-ton truck	30044	Kieochow Rd	Collided with truck	-	-	x	No	Yes	No
Jan 16	Pick-up	32049	Martland Rd	Collided with mancart	-	x	-	No	No	No
Jan 19	Pass car	14127	Eaton Road	Struck by car	-	x	-	No	No	No
Jan 20	Pass car	10619	H. Szechenyi Road	Pedestrian struck by car	-	-	x	No	No	Yes
Jan 21	Pass car	17520	Bubbline Well Road	Collided with pedestrian	-	-	x	No	No	No
Jan 22	Pass car	32464	Ave Joffre	Collided with	-	x	-	No	No	No
Jan 26	Pass	33612	Bubbline Well Road	Struck by pedestrian	-	x	-	No	No	No

Average: 11,612 miles per accident.

(2) Bicycles and Tricycles

None

(3) Details of Accidents involving General Vehicle

Date	Location of accident	Damage to Vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Jan 3	Yanctazepoo	-	-	-	x	-	-	fatal
Jan 3	Fearon Rd.	-	-	-	-	x	-	
Jan 13	Burkill Hill Rd.	-	-	-	-	-	x	
Jan 13	Kieochow road	-	-	-	-	-	-	
Jan 16	Martland Road	-	-	x	-	-	x	
Jan 19	Eaton Road	-	-	x	-	-	x	
Jan 20	H. Szechenyi Road	-	-	-	-	x	-	
Jan 21	Bubbline Well Rd.	-	x	-	-	-	x	
Jan 22	Ave Joffre	-	-	x	-	-	x	
Jan 26	Bubbline Well Rd.	-	-	x	-	-	x	

(4) Staff

None

SHANGHAI POWER COMPANY

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(G) STAFF

(1) Supervisory Staff

No change

(2) Clerical Staff

No change

(3) Monthly Rate Staff

No change

(4) Daily Rate Labour

No change

S. L. Dong

S. L. Dong
Distribution Manager

~~TELEGRAPH COMPANY~~

Shanghai, February 4th, 1948.

The General Manager:

METER AND TESTING DEPARTMENT
LARCENY OF ELECTRICITY
MONTHLY REPORT FOR JANUARY, 1948.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN.\$29,400,000 has been recovered.
One case of damaged meter was found. The cost of repairs, etc., amounting to CN.\$385,000 has been paid by the consumer.

Meter Readers' Reports :

One case of larceny was detected, and revenue amounting to CN.\$6,316,000 has been recovered.
Six cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN.\$1,395,000 has been paid by the consumers.

Route Meter Investigation :

One case of larceny was detected, and revenue amounting to CN.\$16,300,000 has been recovered.
Three cases of damaged meters were found. The cost of repairs, etc., amounting to CN.\$1,408,000 has been paid by the consumers.

Power Meter Investigation :

Three cases of larceny were detected, and revenue amounting to CN.\$55,560,000 has been recovered.
Two cases of damaged meters were found. The cost of repairs, etc. amounting to CN.\$2,626,000 has been paid by the consumers.

Small Area Investigation :

One case of damaged meter was found. The cost of repairs, etc., amounting to CN.\$786,000 has been paid by the consumer.

Miscellaneous :

Seventeen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc., amounting to CN.\$9,427,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seal :

Forty cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN\$3,400,000.

SHANGHAI POWER COMPANY

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Summary :

Six cases of larceny have been detected and settled during the month together with thirty cases of damaged meters and/or associated equipment.

Revenue amounting to CN. #139,205,000 has been recovered, of which:-

- a. CN. #117,576,000 represent recovered revenue.
- b. CN. # 19,229,000 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN. # 2,400,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Forty cases of unmetered consumption due to defective or damaged meters were dealt with on Consumers' Accounts Inspect Orders during the month and revenue amounting to CN. #18,492,000 was recovered.

NOTE:- Nine cases of unmetered supply taken by various units of the Chinese Armed forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

A. Bennett
For R. Jacobs,
Meter & Testing Engineer

AVG: zkc

1408*

SHANGHAI POWER COMPANY

JANUARY, 1948

ANALYSIS OF CASH RECOVERED FOR ESTIMATED LOSS OF REVENUE
FROM CONSUMERS DRAFTED IN LARGEST OF ELECTRICITY AND FOR
BILLED OR MISSING LETTERS AND BILLED MAN FEES SEALS.

S.P.C. & H.D.P.C.

NATURE OF INVESTIGATION	Imports G.I. \$	Exports Notes G.I. \$	Recovered Notes G.I. \$	Recovered Notes G.I. \$	Missing Notes G.I. \$	Fines G.I. \$	Broke Watt Hour Seals G.I. \$	TOTAL G.I. \$
Accounts Office Queries	29,460.000	--	365.000	--	--	--	29,785.000	
Letter Readers' Reports	6,316.000	--	4,395.000	--	--	--	10,711.000	
Route Meter Investigation	16,300.000	--	1,428.000	--	--	--	17,708.000	
Power Meter Investigation	65,560.000	--	2,828.000	--	--	--	68,388.000	
Small Area Investigation	--	--	785.000	--	--	--	785.000	
Miscellaneous	--	--	9,427.000	--	--	2,420.000	11,627.000	
Total	117,576.000	--	19,229.000	--	--	2,460.000	139,205.000	

H.D.P.C. (Included in above figures):

Accounts Office Queries	--	--	565.000	--	--	--	586.000
Letter Readers' Reports	--	--	715.000	--	--	--	17,015.000
Route Meter Investigation	16,300.000	--	6,164.000	--	--	--	7,124.000
Miscellaneous	--	--	--	--	--	960.000	24,724.000
Total	16,300.000	--	7,464.000	--	--	--	

	S.P.C. & H.D.P.C.	H.D.P.C. (Daily)
Month ending January 31st 1948	G.I. \$39,205.000.-	G.I. \$ 24,724,000.-
12 Months ending January 31st 1948	G.I. \$572,436.000.-	G.I. \$14,029,900.-

JANUARY, 1948S.P.C. & S.D.F.C.SHANGHAI POWER COMPANY

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULAR- TIES FOUND	LARGEST CASES			TOTAL CASES
				Impaired Meters	Temporary Meters	Defected and/or Missing Plant	
Accounts Office Queries	1617	1069	268	1	1	1	2
Meter Readers' Reports	9	9	7	1	-	6	7
Route Meter Investigation	1369	1944	480	1	-	3	4
Power Meter Investigation	95	191	46	3	-	2	5
Small Area Investigation	355	453	95	-	-	1	1
Casual Visits - Day	70	112	22	-	-	-	-
Informants' Letters	8	3	2	-	-	-	-
Miscellaneous	17	17	27	-	-	17	17
Total	2544	3798	957	6	-	36	36

S.P.C. (Included in above figures):

Accounts Office Queries	193	264	56	-	-	-	-
Meter Readers' Reports	2	2	1	-	-	-	-
Route Meter Investigation	523	171	14	-	-	1	2
Small Area Investigation	128	164	22	-	-	-	-
Casual Visits - Day	2	3	1	-	-	-	-
Informants' Letters	1	2	1	-	-	-	-
Miscellaneous	0	0	0	-	-	0	0
Total	747	952	218	1	-	8	9

S.P.C. & S.D.F.C.	Impaired Meters	Largest Tie-ups	Cases	S.P.C. & S.D.F.C. (only)	Impaired Meters	Largest Tie-ups	Cases
Month ending Jan. 31st 1948	2,944	3,098	957	35	757	952	216
12 Months ending Jan. 31st 1948	42,747	59,793	17,268	423	1C,776	14,999	4,108